THORN EMI

User Handbook

THE LIBERATOR

Portable Text Processor...

...For Business on the Move

THE LIBERATOR

Portable Text Processor

USER HANDBOOK

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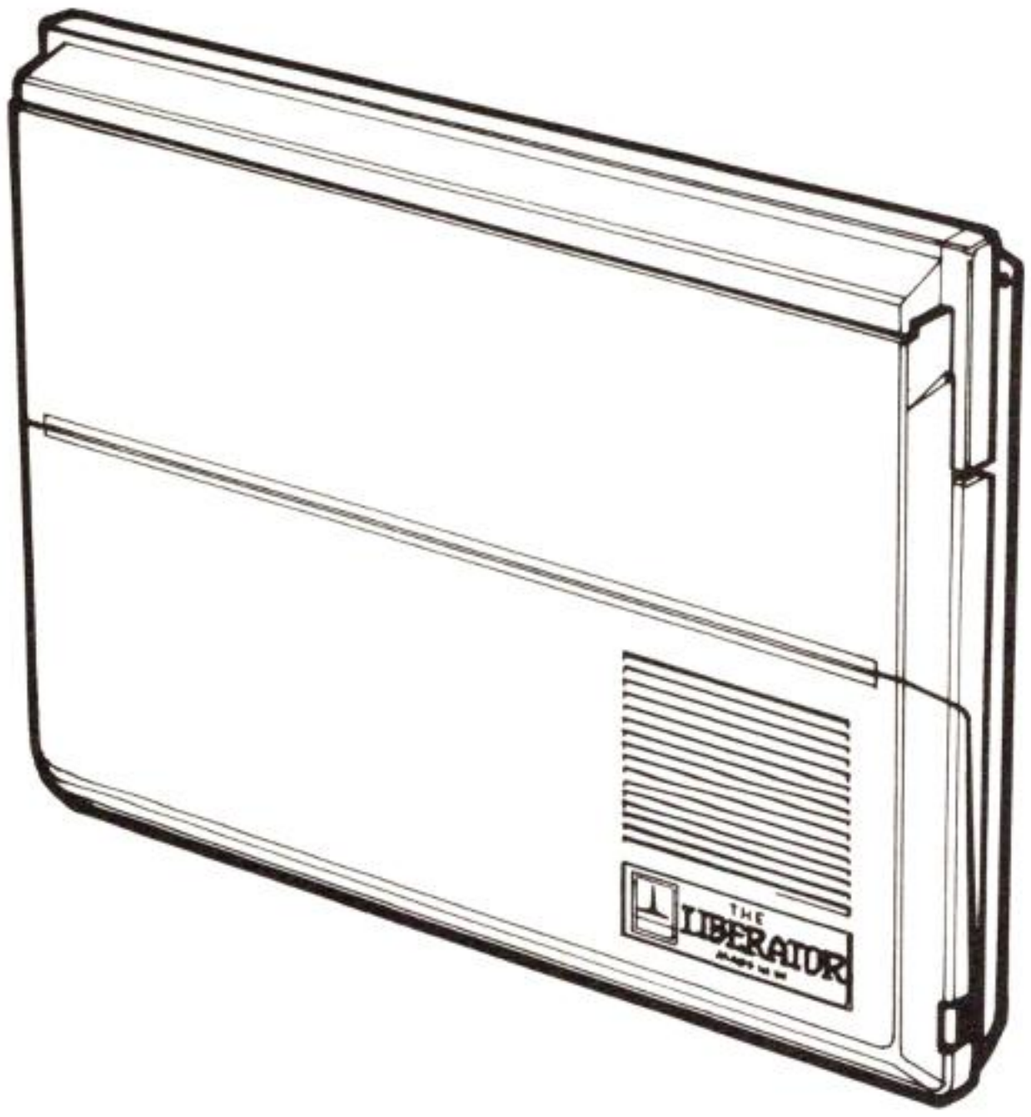
FOREWORD

THE LIBERATOR SYSTEM



The Liberator is a truly portable, battery operated, lightweight, kneetop unit, designed specifically as a management aid for busy staff; offering a complete system for the ready creation, editing and subsequent printing of basic office documents.

The Liberator **text processing system** is based around MENUS (lists of options), shown in a 'window' at the right of the screen, with the purpose of each option currently available shown in a changing 'window' at the top of the screen. An option is highlit and selected by the Cursor Control keys and actioned by the ENTER key. Before an option is actioned, helpful information and prompts to any further user action required are displayed at the top of the screen.

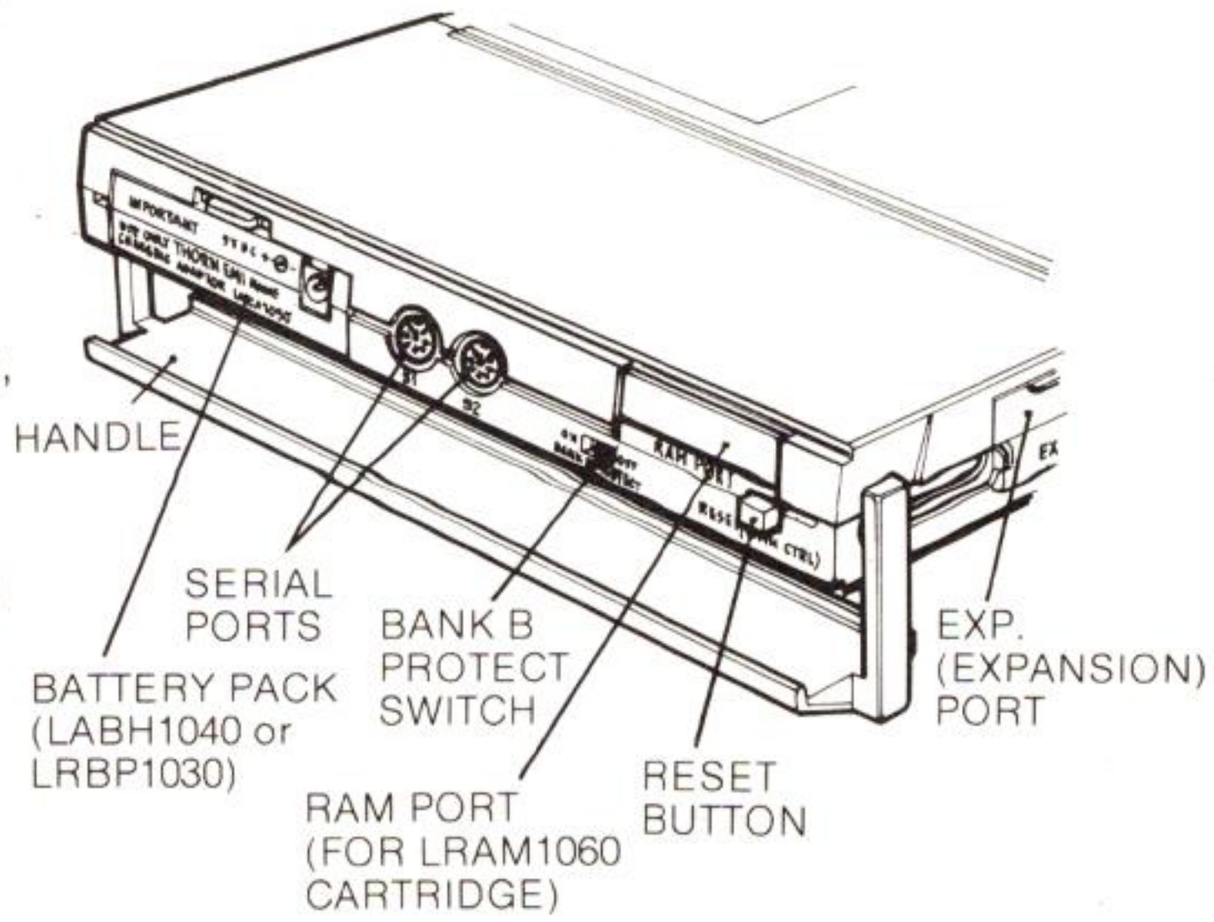
The hub of the system is the Main Menu, presented at initial switch-on, which provides access to all of the facilities and files. Whilst working, the user can check the options currently available by pressing the COMMAND key. On completion of work on the Liberator, returning to the Main Menu (MENU on all option lists) before closing the unit will ensure that the text is saved, and safeguard against accidental loss.

TERMINOLOGY

FILES — Any documents, reports, letters, etc, to be created, edited and printed, will be held on the system in units called **'files'**, and this term will be used throughout the handbook. To facilitate retrieval, files can be given meaningful titles (names) of up to 11 characters.

MENU — The screen lists of options available to the user at any one time are referred to as 'menus' and the initial screen as the MAIN MENU.

MEMORY — The file storage area in the unit is referred to as 'memory'. The Liberator memory is allocated in **'blocks'** of about one thousand characters and the MAIN MENU shows the number of blocks currently available to the user. The Liberator LPTP1001 offers 39 blocks and the LPTP1002, 62. One block is reserved for each file as it is opened, with additional blocks being taken up automatically when the initial one is full. A file may be up to 16 blocks long — just over 16,000 characters.



BANKS — The storage capacity of the Liberator is organised in self-contained sections referred to as 'banks' of memory:

BANK A has 39 blocks; available on Liberator Models LPTP1001 and LPTP1002.

BANK B has 23 blocks; available only on Liberator Model LPTP1002, giving LPTP1002 a total of 62 blocks.

BANK C has 23 blocks; available as a plug-in cartridge, Model LRAM1060, which can be used with either Liberator, LPTP1001 or LPTP1002, to give additional working memory and a removable file storage facility.

Files can be transferred between memory banks.

DIRECTORY — The list of files currently held in the memory is referred to as the **directory.** The directory is always in alphabetical order. Up to 30 files may be opened in the directory of Bank A, and up to 23 files in each of Banks B and C, if fitted.

ENTER — To select options, to action them, or to denote the completion of a keyed instruction (e.g. a file name), the large angled key at the right of the keyboard marked ENTER must be pressed. Pressing the ENTER (↵) key in text, in any position on a line will, as with the carriage return key on a typewriter, move the text entry position to the start of a fresh line; for example, to end a paragraph or to provide a blank line. When used in this way in text, a symbol (↵) — as shown on the ENTER keytop -- will appear on the screen at that point.

WORD-WRAPPING — It is not necessary to use the ENTER key at the end of each screen line, as the system automatically moves to the next line if the last word (plus its following space) will not fit on the current line — this is referred to as **word-wrapping.**

BREAK/COMMAND — This facility, operated with the large blue key at the top of the keyboard, is a vital element of the Liberator text processing system. It is used to move into and out of the wide range of options available from the system at any point. At its simplest it can be pressed once to view the options currently available, and again to return to the text without action. If an option is entered in error, or difficulty is encountered, pressing this key will cancel the operation and return the user to the text or to the Menu.

MARK — Before any operation can be undertaken on a specific section of text within a file (e.g. copying, printing), it is first necessary to delineate (or mark) that section. After moving to the start of the area of text involved, pressing the MARK key allows the marking to proceed, using the black, arrowed cursor controls. Pressing the key again shows the range of options for the marked area of text. Full details of the MARK operation are given later in Chapter 5, Replacement and Movement of Text.

PASTE BUFFER — When an area of text has been marked for copying or cutting, it is temporarily held in a special holding memory within the Liberator, called the PASTE BUFFER. It can subsequently be recalled under the PASTE instruction for insertion at any selected point in any chosen file.

The PASTE BUFFER will hold up to 2 Blocks of text (i.e. approx 2000 characters). This is equal to 2 screens full of text with the Liberator at the standard setting of 66 characters per line.

The contents of the PASTE BUFFER will be retained until replaced by a subsequent MARK and COPY or MARK and CUT operation.

CURSOR — Not possessing the unrivalled combination of eyes, hand and brain available to users, screen-based text systems require a clear unambiguous indication of the next point for action. To achieve this end the Liberator system utilises a screen marker commonly referred to as a 'cursor'. This device is in essence a 'pointer' that can be moved around the screen and files to indicate the current working position. It varies in form from a highlit rectangular block over a file name or option on a Menu, to a highlit single character block over the current action position in text. It can be moved around lists of options or files, or around text, by the use of the black, arrowed Cursor Controls at the top right of the

keyboard. In text the Cursor will usually be either at the start or at the end of the file — where it must always be for the entry of additional text. When text is being keyed the Cursor will move forward automatically with each key depression to indicate the next character position for entry. The Cursor is not an action device but an indicator to be placed at the exact position at which action is to be taken — and it must always be moved to the next working point before further action or keying is commenced. The Cursor cannot be moved beyond the 'end of file' marker (◄).

RESET — In the unlikely, but possible, event of the screen display locking, with the keyboard inoperative, do not panic and do not strike keys at random. The situation can be remedied by the use of the RESET button located at the rear of the unit (extreme left, by the RAM PORT). Holding down the CTRL key, the RESET button should be pressed once and released — the Liberator should then return to normal operation. The use of this button will not result in loss of work but may return the setting of minor facilities (e.g. the screen line width) to factory-set state.

SERIAL PORTS — Two 8-pin sockets are provided at the rear of the Liberator. These are referred to as the SERIAL PORTS, S1 and S2, and they enable Liberator to be connected to a range of equipment including printers, modems, acoustic couplers and disk drives.

EXP. (EXPANSION) PORT —An Expansion Port is provided on the Liberator for the connection of external peripheral devices and external application software packages in the form of plug-in cartridges.

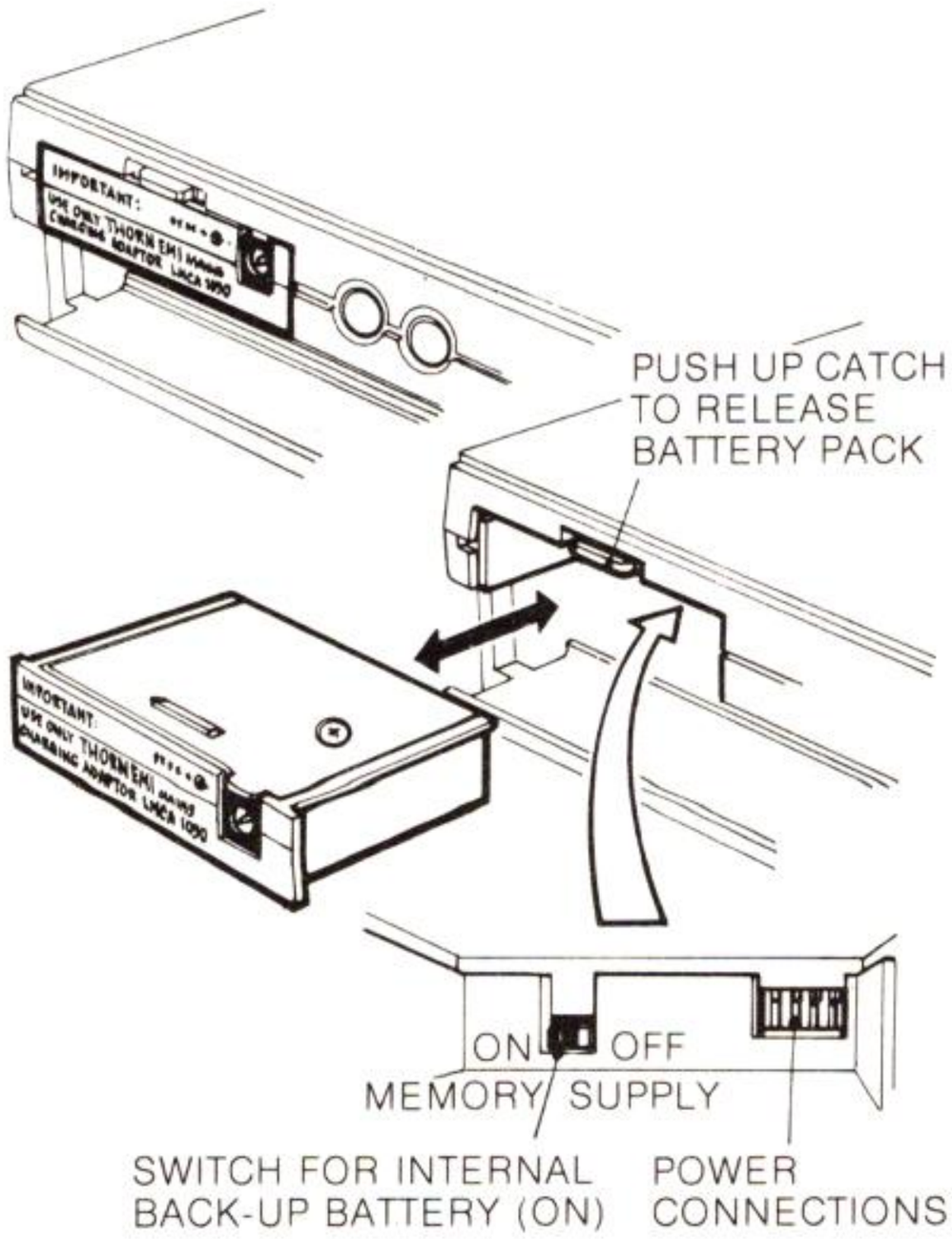
QUICK START — For the knowledgeable or the impatient a much abbreviated tour of the Liberator text processing system has been provided at Appendix B.

QUICK REFERENCE SHEET — This shows the functions and controls available from the Main Menu and Files and also presents a brief summary of the use of the Cursor Controls and other main keys. See Appendix C.

Chapter 1

INTRODUCTION TO THE LIBERATOR

Chapter 1
INTRODUCTION TO THE LIBERATOR



1.1 POWERING LIBERATOR

Before using the Liberator, observe the following instructions carefully:

a) Remove the battery pack (LRBP1030 or LABH1040) from the back of the Liberator revealing a switch in the main unit. This switch should be set to the left (towards the edge of the Liberator) switching on the internal secondary memory back-up battery. Normal operation will now maintain the charge of this back-up battery.

b) If using alkaline battery holder, LABH1040, check that it is correctly loaded with four type AA (1.5V) or equivalent alkaline batteries.

c) If using rechargeable battery pack, LRBP1030, it is necessary to connect the mains charging adaptor, LMCA1050, to a suitable mains point and then plug the small connector into the socket (9V dc) on the back of the battery pack **ensuring that the mains supply is turned ON first.** Use only Liberator adaptor LMCA1050 as the use of any other adaptor **may cause serious damage.**

The adaptor will charge the battery pack and supply the Liberator for normal use at the same time.

The battery pack may be charged in or out of the Liberator. Charging times are as follows: 5 hrs with Liberator off; 8 hrs with Liberator on.

Excessive charging may damage the battery pack.

d) When the batteries are running low, the prompt "LOW BATTERY" will appear highlit at the top right of the screen and a warning beep will sound. **The batteries should now be replaced or recharged.** It is possible to continue operating the Liberator for a further 15 minutes but during this period warning beeps will sound every 5 minutes. If no action is taken to change the battery pack or provide a mains supply through the adaptor, the Liberator will turn itself off and the screen will go blank. **Stored data may be lost.**

Providing a new power supply will enable work to continue.

IMPORTANT NOTES

1. Always plug adaptor (LMCA1050) into a mains point and turn ON the mains supply **before** connecting it to the Liberator.

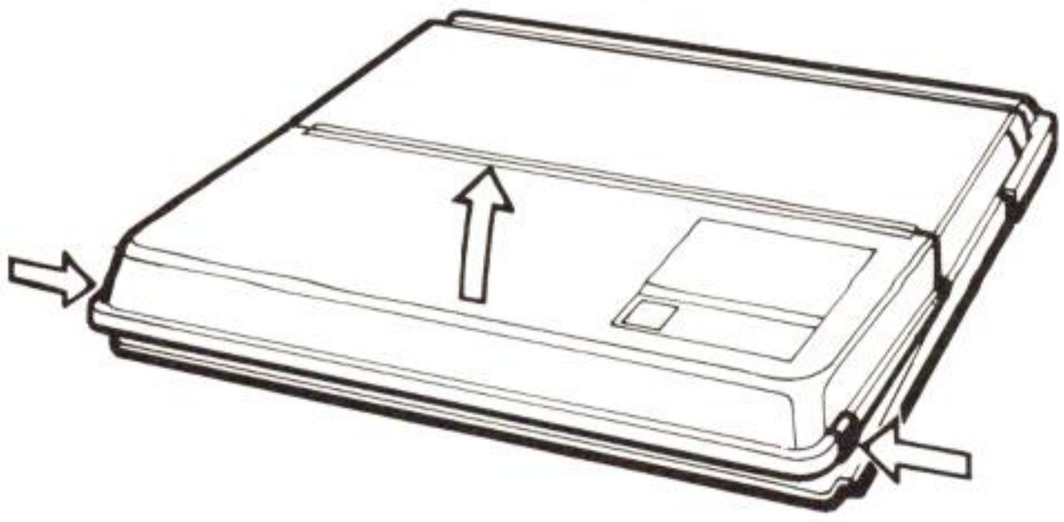
2. Always turn OFF the Liberator **before** connecting the adaptor.

3. Always disconnect adaptor plug from the Liberator **before** removing mains supply.

4. Always turn OFF the Liberator **before** removing the battery pack (LABH1040 or LRBP1030).

5. Do not exceed the recommended charging times for rechargeable battery pack LRPB1030 by more than 4 hours or so.

6. Do not store the Liberator for long periods in a "LOW BATTERY" condition.

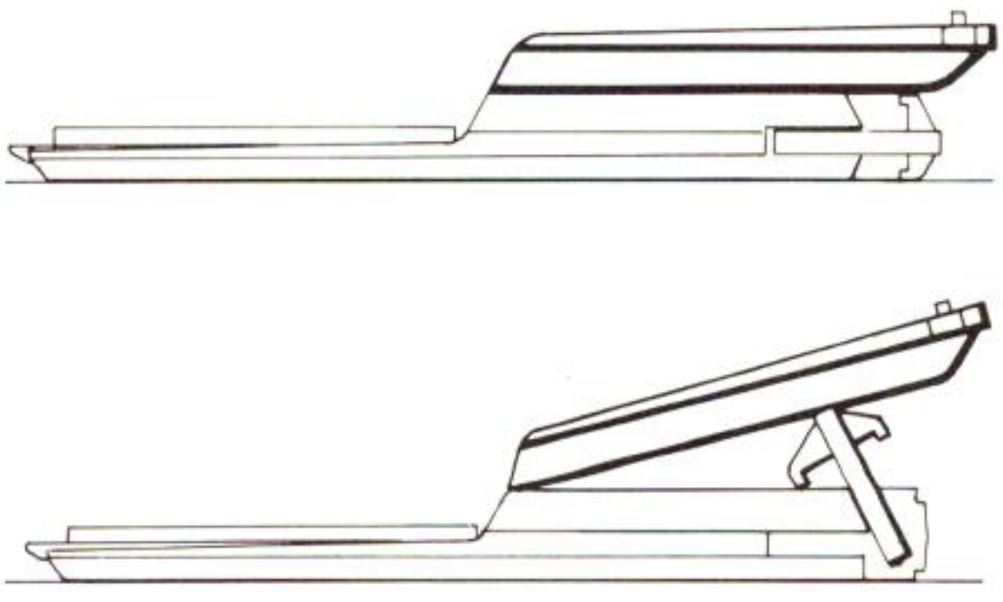


1.2 OPENING LIBERATOR

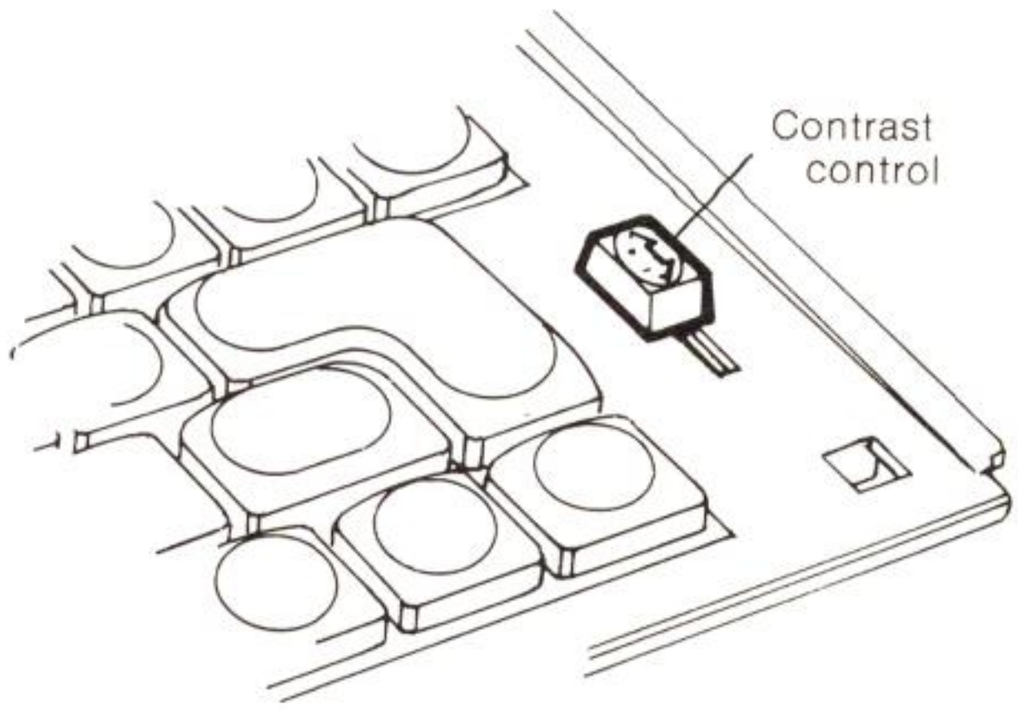
The keyboard and display are protected by the case and are revealed when the front edge of the Liberator is lifted. To release the lid press the catches on either side. The action of raising the lid also switches on the unit. Closing the lid switches the unit off.

1.3 DISPLAY

To suit individual requirements the display, providing 16 lines of up to 80 characters, can be positioned flat against the unit, tilted by the handle, or tilted with the whole unit — also by the use of the handle.

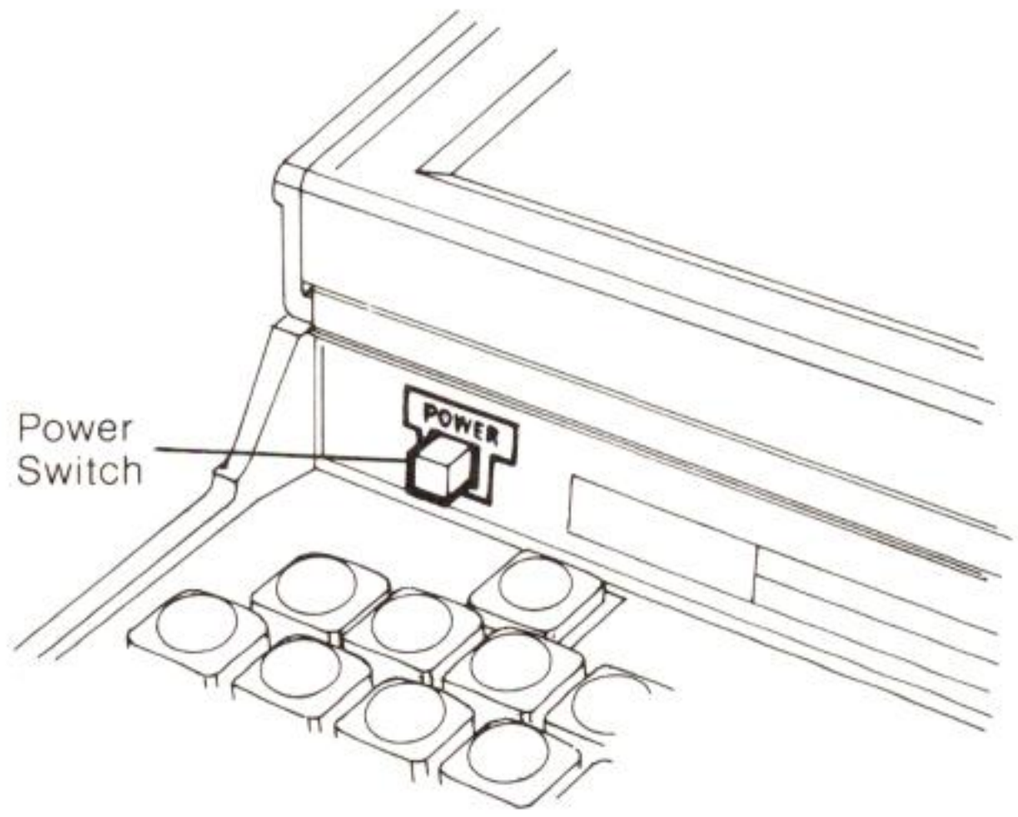


1.4 CONTRAST



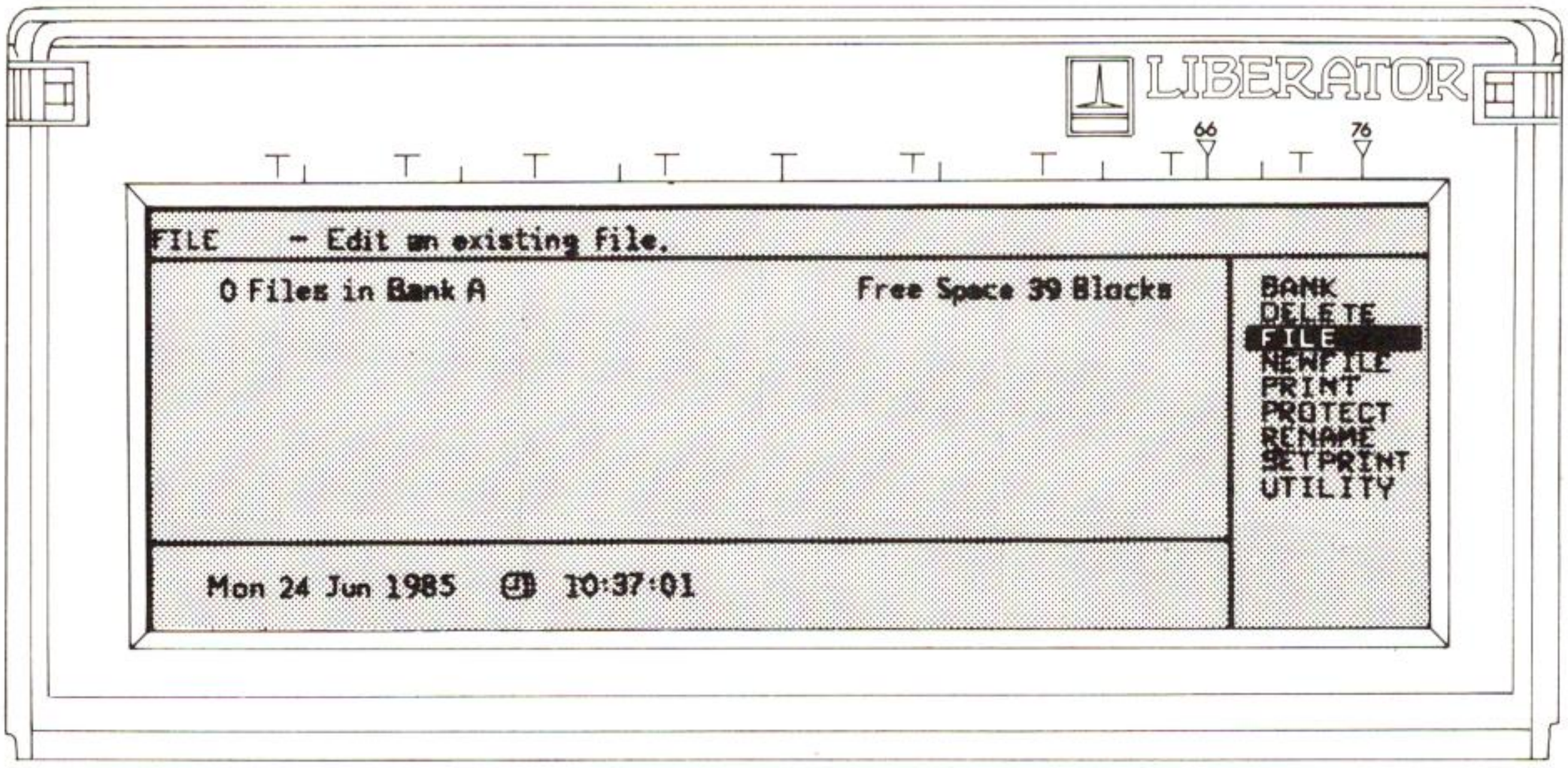
The contrast of the liquid crystal display (LCD) can be altered to suit variations in the ambient lighting, by the slider control to the right of the keyboard. This type of display gives the best results under high levels of illumination.

1.5 AUTO POWER OFF



If the unit is left open and not used for ten minutes it will automatically switch off — pressing the power button on the ledge at the rear of the keyboard restores the power. When switched back on, the display reverts to its previous state.

1.6 MENUS



The screen display presented at initial switch-on is called the MAIN MENU — With no documents in the unit the offerings are restricted to the facilities resident in the permanent programs supplied with the Liberator. These are:-

BANK To move to another memory bank in the unit (if fitted).

DELETE To erase a document file from the unit.

FILE To edit an existing document file held in the unit.

NEWFILE To open a new document file.

PRINT To print a document file selected from the Main Menu on the system printer.

PROTECT To protect (or unprotect) a document file to avoid accidental erasure.

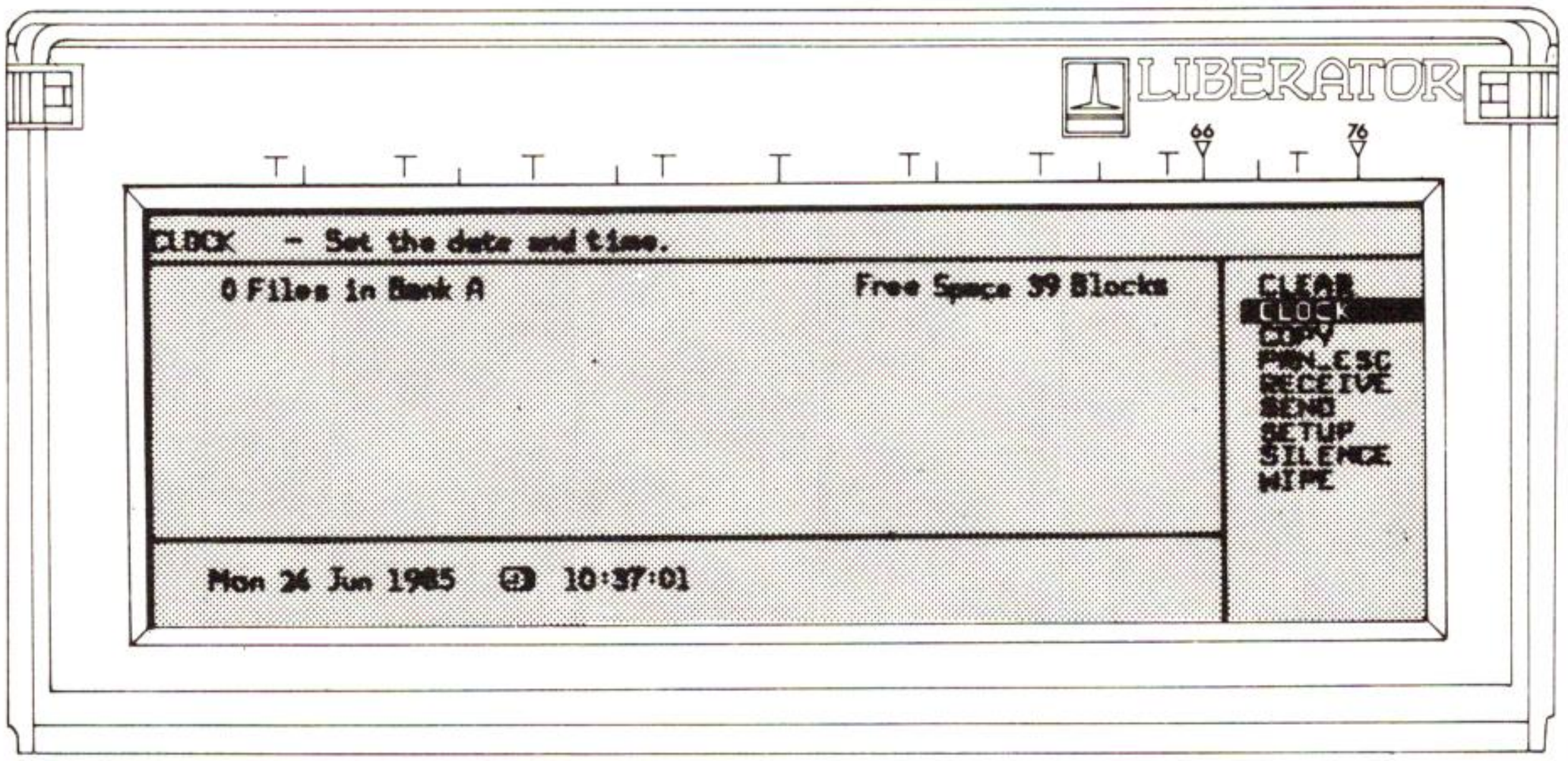
RENAME To change the name of a file.

SETPRINT To select the Dot Matrix or Daisywheel printer.

UTILITY To move to a sub-menu covering the less used options.

Move the cursor to UTILITY by pressing the black cursor down key (↓), then press ENTER (↵). The UTILITY Menu will be displayed, as follows:

UTILITY MENU



CLEAR	To clear the paste buffer.
CLOCK	To set up the current date and time on the system, which has its own real time clock permanently maintained by the internal batteries.
COPY	To copy a file to another memory bank if fitted.
PRN ESC	To alter printer escape sequences.
RECEIVE	To receive a file to be transferred from another Liberator unit.
SEND	To send a file to another Liberator unit.
SETUP	To reconfigure the system for communication with other devices.
SILENCE	To silence the beeper which sounds on opening the unit or cancelling an option. (Note: also silences the 'FILE FULL' warning beeper).
WIPE	To erase ALL files in the current memory bank. Does not clear the paste buffer. (Note: Can also be used if files and file list have become corrupted and

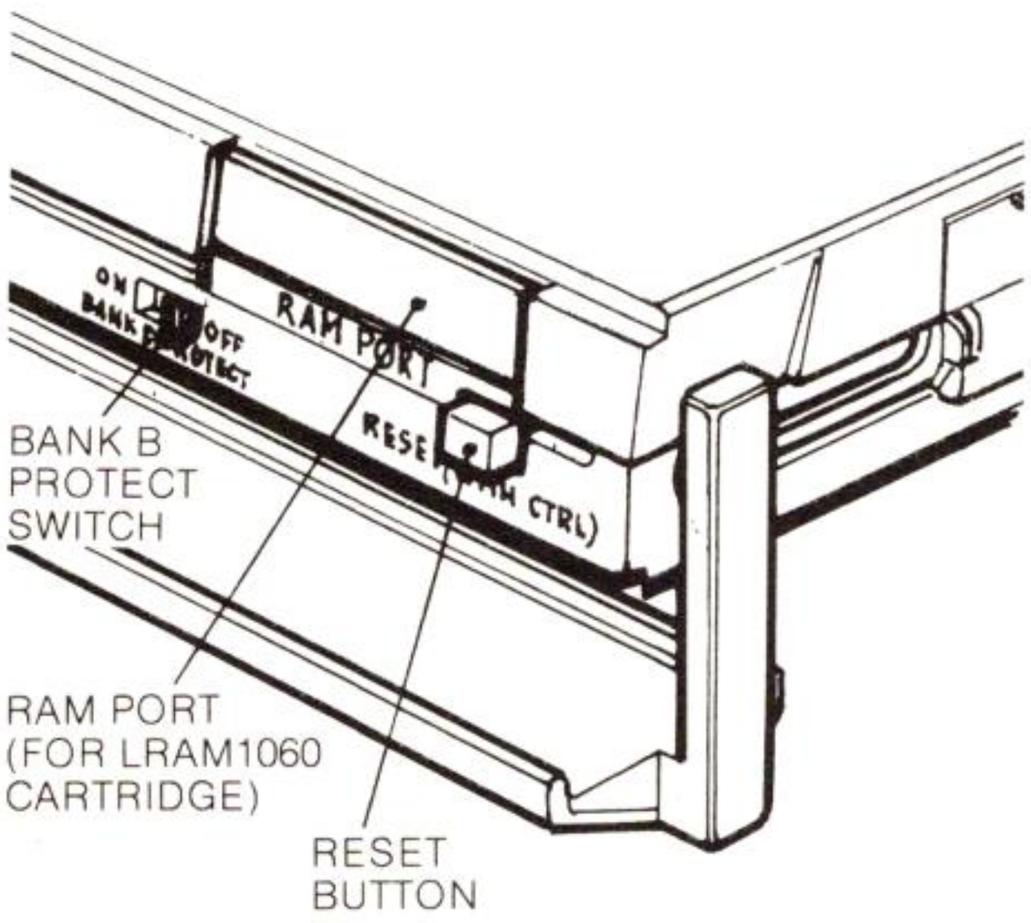
1.7 MEMORY

The amount of memory currently available to the user for document file creation is shown at the top right of the Main Menu screen in blocks. The basic model LPTP1001 provides 39 blocks (about 14-18 A4 pages), in Bank A, and the enhanced model, LPTP1002, 62 blocks (about 28-36 A4 pages), 39 in Bank A and 23 in Bank B.

ADDITIONAL MEMORY

The storage can be increased by the use of the cartridges available — LRAM1060 — each providing 23 blocks, the currently used cartridge becoming Bank C.

1.8 BANK B PROTECT SWITCH



All Liberators are fitted with a BANK B Protect Switch, as shown, although these are only operational where BANK B is fitted (on model LPTP1002).

This switch is provided to prevent accidental erasure of files in BANK B when it is not in use. The protection is implemented when the switch is set to the **ON** position.

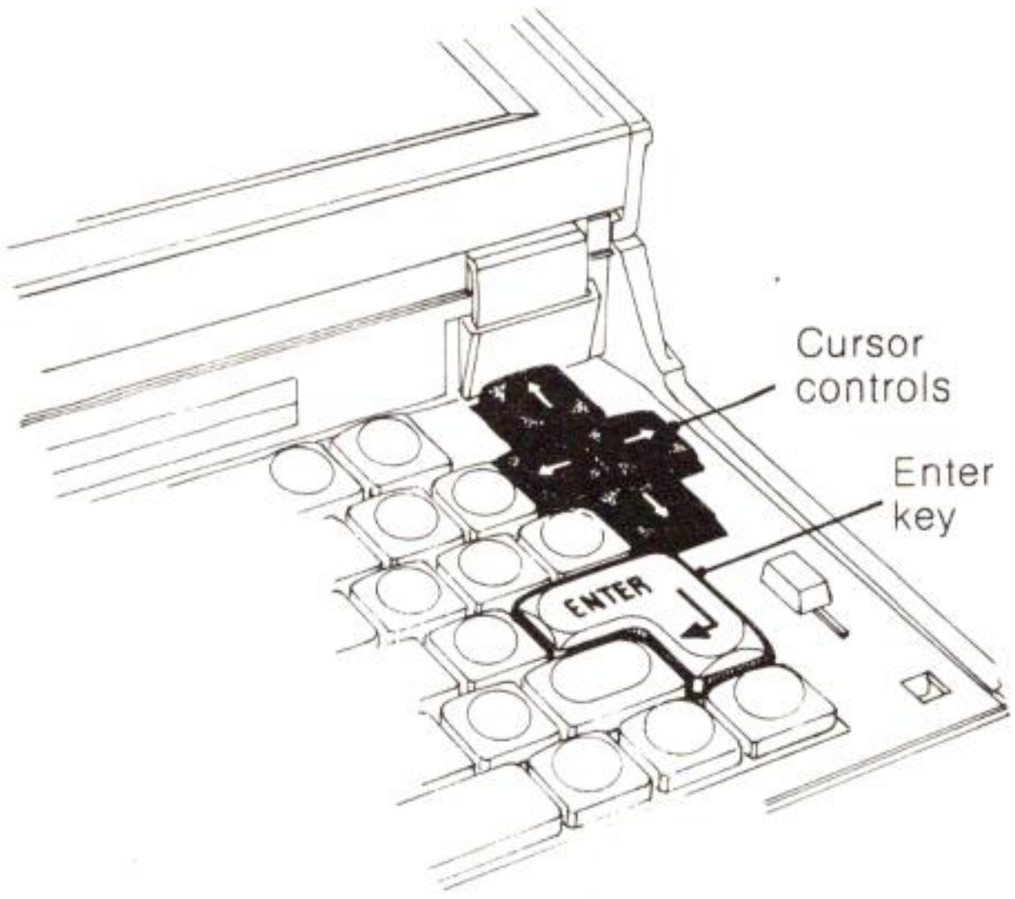
With the protection **ON,** operations on BANK B files are not possible, with the exception of copying a file from BANK B to another bank.

To resume full operations on Bank B files, set the switch to the **OFF** position.

DO NOT ALTER THE SWITCH SETTING DURING ANY FILE OPERATION AS DATA MAY BE LOST.

1.9 TIME AND DATE

To set the time and date appearing at the bottom left of the screen press the black cursor control down key (↓) until the cursor is over 'UTILITY', now press ENTER key once. Select 'CLOCK' in the same way and then proceed as follows:-



DAY — use the cursor control keys right or left (→, ←) to select the correct day then press ENTER key.

DATE — use the cursor control keys up or down (↑ , ↓) to set the current date then press ENTER key.

MONTH — use the cursor control keys (←, →) to select the month then press ENTER key.

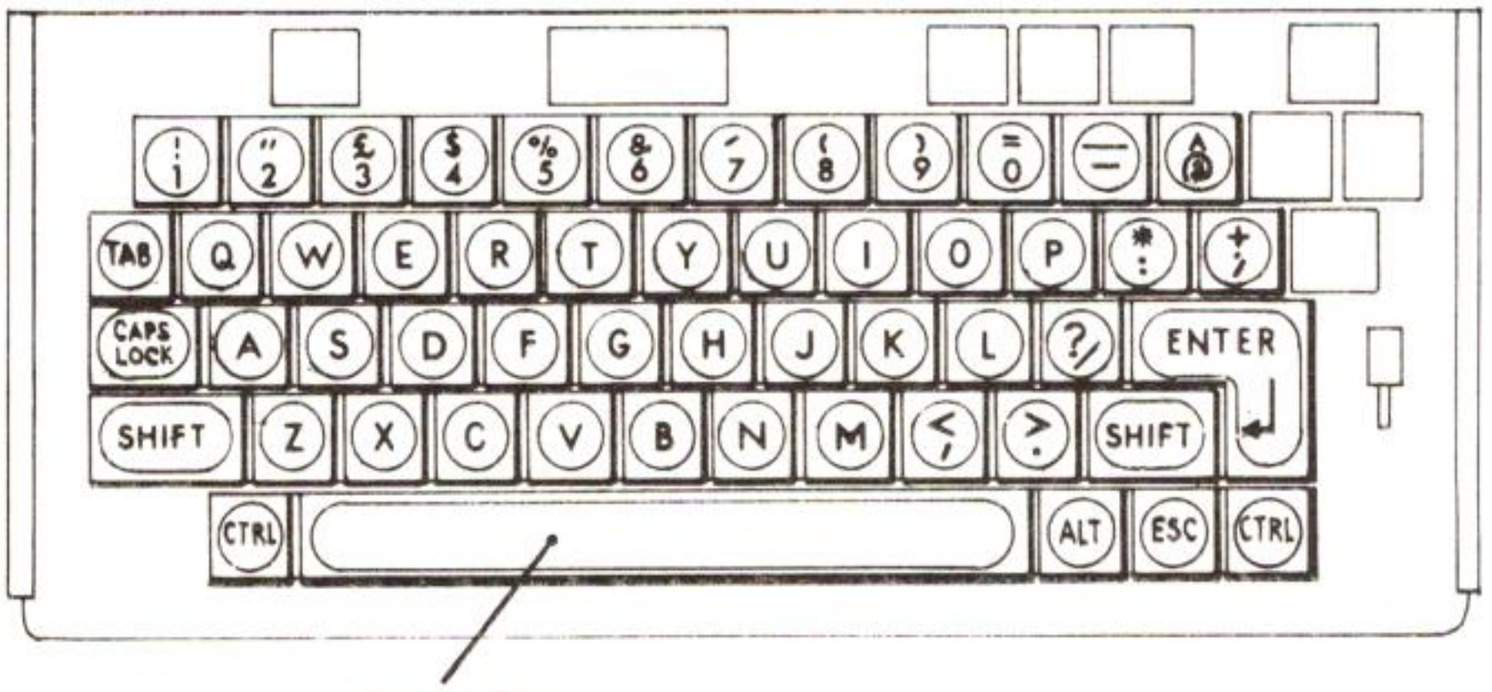
YEAR — use the cursor control keys (↑ , ↓) to set current year then press ENTER key.

HRS/MIN — use the cursor control keys (↑ , ↓) to first set the hour, (note : 24 hour display) press ENTER. Then use the cursor control keys (↑ , ↓) to set the minute, pressing ENTER key on the minute.

Chapter 2

THE MAIN KEYBOARD

Chapter 2
THE MAIN KEYBOARD



The main keyboard does not use any special keys, and if you are familiar with the use of computer keyboards you may wish to go direct to the next chapter.

2.1 KEYFAM

If you have never used a typewriter or computer keyboard before, or wish to review your keying abilities, the Liberator has its own easy to use, and friendly keyboard familiarisation package called KEYFAM. The package is available in a special application cartridge, KFAM1080. (See Appendix A).

2.2 ENTER, SHIFT AND CONTROL

Three important keys on the keyboard are marked ENTER, SHIFT and CTRL (CONTROL) and may be unfamiliar to newcomers to keyboards.

a) ENTER is used primarily to action (or enter) a desired instruction, for example, to 'enter' a specific function or file. Whenever requested to 'enter' information, the keying should be concluded with a depression of the ENTER key. Additionally, the ENTER key acts as a carriage return (hence the symbol on the keytop) and should be used in text creation when the current line of text is to be ended and a new line commenced — for example at the end of a paragraph. The use of this key is not necessary at the end of a screen line or sentence. When used to terminate a line, pressing ENTER will leave the symbol (↵) on the screen at that point — the symbol will not appear on any subsequent printed output.

b) SHIFT is used, as on a typewriter, for the upper case (capital) letters, plus the upper character or symbol on keytops with two markings.

c) CONTROL has no specific meaning in text creation, although commonly used in computing. It is best thought of as a super-SHIFT used to extend the usefulness of functions such as DELETE and CURSOR, and is explained in later chapters. It will be referred to as CTRL in the handbook.

2.3 CAPS LOCK

The CAPS LOCK key will produce Upper Case (Capitals) from the alphabetic keys until depressed a second time to release it — useful when keying headings or other blocks of Capital letter text. When CAPS LOCK is in use the occasional lower case letter can be obtained by holding down SHIFT plus the key of the required alphabetic character. The numeric and symbol keys (including comma and full stop) are not affected by CAPS LOCK.

2.4 ALT AND ESC

The keys marked ALT (ALTERNATE) and ESC (ESCAPE) are not required for basic text preparation. They can therefore be ignored at this stage. (See Chapter 6 — Additional Text Facilities.)

2.5 TAB

The TAB (TABULATION) key operates in a similar way to the TAB key on a typewriter, and is used to line up text or figures in columns (e.g. for producing a table of results). Each press will move the Cursor to the next TAB position, which is in fixed 8 character increments from the first character position in a row.

2.6 INDENTATIONS

When TAB is used to indent sections of text it should be noted that a clean indentation cannot be achieved with a single operation. This is caused by the carryover of the varying number of spaces from the end of the previous line. Clean indentation can be achieved by:-

i) terminating each prior line end by the use of ENTER (↵)

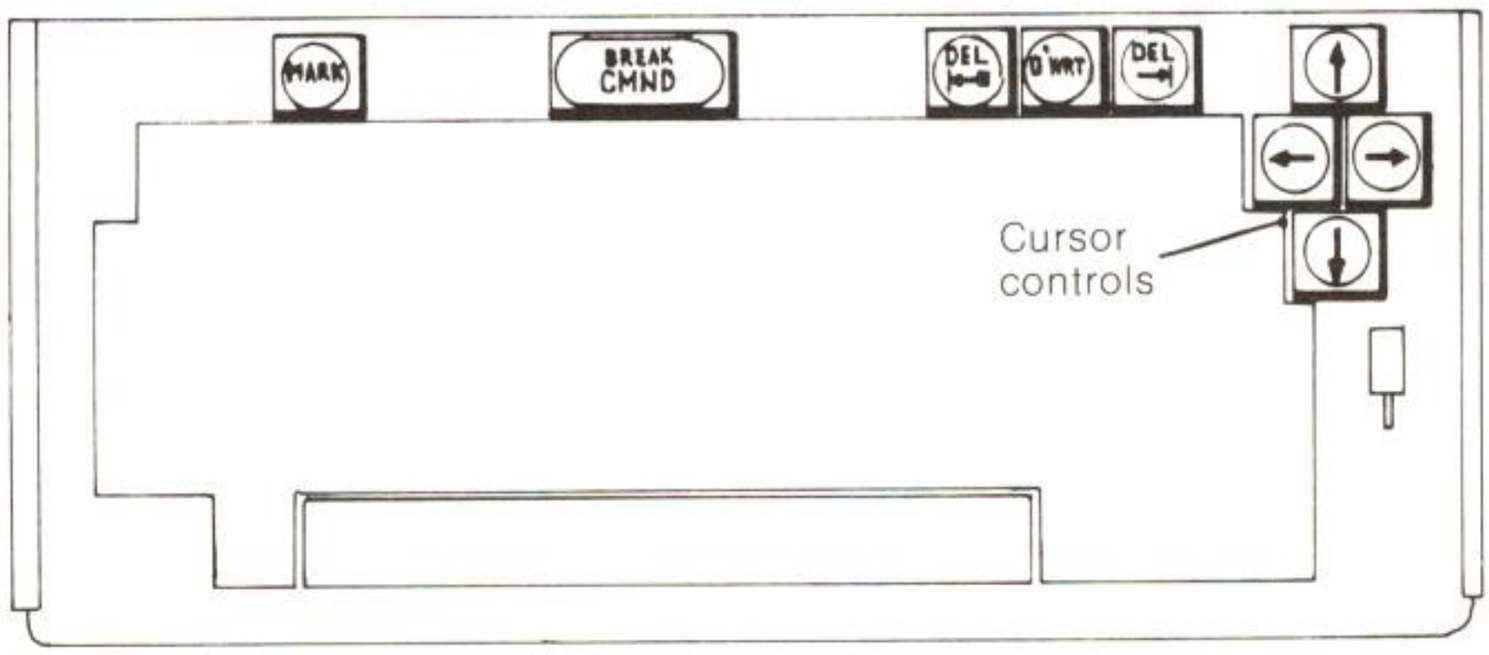
or

ii) using TAB on the new line, starting the text entry, then adjusting the indentation, using the Cursor Control and the Space Bar, as necessary.

Chapter 3

SPECIAL KEYS AND CONTROLS

Chapter 3
SPECIAL KEYS AND CONTROLS



There are 3 sets of special keys on the Liberator; one set at the extreme top right and two sets above the main keyboard. All are designed to assist in the ready creation, editing and printing of documents.

3.1 CURSOR CONTROLS

The first set of special keys — the CURSOR CONTROLS — is a key element of the Liberator text processing system and is used to move the Cursor to the current working position on the display screen. The Cursor takes three forms:

a) a black surround highlighting the name of a file or a command on the screen — as on the main selection screen (MENU) when the unit is first turned on.

b) a small flashing black rectangle, the size of one character, highlighting any character or space in text — as in normal text creation mode.

c) a small solid black rectangle, the size of one character, highlighting any character or space in text — as in Overwrite mode.

The movement of the Cursor is controlled by the four black, arrowed keys. One key depression will move the Cursor one file, command, character or row in the direction indicated. Holding down the key will cause continued movement in the direction indicated until the key is released.

When making changes in an uncompleted document, simply pressing the Cursor down key (↓) whilst CTRL is held down, will move the Cursor direct to the end of the file to continue text entry. Similarly it is possible to move from any point in the file to the start by pressing the Cursor up key (↑) whilst CTRL is held down.

When used in document creation and amendment, the CURSOR can be moved to any part of a large file with ease by the additional use of the SHIFT and CTRL keys. These keys have been duplicated at either end of the keyboard so that the Cursor can be moved around the document with one hand. The detailed operation of the Cursor is shown on the Quick Reference Sheet, Appendix C.

3.2 END OF FILE MARKER

In text, in addition to the rectangular character cursor, there is a small sized triangular symbol (◀) to indicate the last entry position in the current file — the **end of file marker**. When adding text to a file, the flashing character cursor will normally be over the end of file marker — if it is not, the cursor controls should be used to bring them together.

3.3 DELETE, BACKSPACE AND OVERWRITE

The second set of special keys is over the top right of the keyboard and covers the Delete, Backspace and Overwrite functions.

a) The **DEL** (DELETE) key with the white rectangle (|←■) also provides the **Backspace** facility, which can be used to correct immediately, errors detected whilst keying. Each depression of the key will delete one letter to the left of the Cursor.

Pressing DEL (|←■) once, after movement of the Cursor to the required point in the text for amendment, will delete one character to the left of the Cursor and DEL (→|) the character under the Cursor. The movement of the Cursor to continue editing or text entry, with or without the keying of replacement text, will cause the

text to be reformatted. The systematic deletion of words and lines of text can be achieved by the use of the DEL keys with SHIFT and CTRL and is shown on the Quick Reference Sheet.

b) The **O'WRT** (OVERWRITE) key permits the keying of characters over existing text, thus replacing it without separate insertion and deletion actions. Pressing the O'WRT key will action the Overwrite facility at the Cursor position, placing the warning highlit message 'OVERWRITE' at the top right of the screen and changing the Cursor from a flashing to a solid character block. On keying the first amending character the prompt will disappear. Pressing O'WRT again will restore the normal text entry system, changing the Cursor back to a flashing block and showing the highlit prompt 'INSERT' at the top right of the screen.

3.4 MARK AND BREAK/COMMAND

The third set of special keys, consists of the two keys, MARK and BREAK/COMMAND.

a) MARK is used to delineate and highlight on the screen, areas of text for subsequent operations, including COPY, CUT, DELETE and PRINT. After positioning the Cursor at the start of the section of text to be actioned, the MARK key should be pressed once. The Cursor Controls, with SHIFT or CTRL as appropriate, should then be used to cover the area to be actioned, which will be automatically highlighted. Pressing MARK again will turn off the marking facility and present the options of:

COPY	To transfer the highlit area of text to a special holding area in memory called PASTE (referred to as the Paste Buffer), without deleting it from the current file.
CUT	To transfer the highlit area of text to the Paste Buffer, deleting it from the current file.
DELETE	To delete the highlit area of text from the current file and 'scrap it.
PRINT	To print the area of highlit text on the Liberator print station.

b) Pressing the large **BREAK/COMMAND** key makes available the options open to the user at that particular point in the system. It will also show those options at the right of the screen, with a brief description of the current option at the top of the screen. In the text mode they will be:-

FIND	To find the next occurrence of a nominated sequence of characters in the current file.
MENU	To return to the Main Menu, automatically saving the current file.
MERGE	To insert another nominated file at the current Cursor position.
PASTE	To place the contents of the Paste Buffer at the current Cursor position.
PRINT	To print the contents of the current file on the Liberator print station.
WIDTH	To set the line length on the display screen to 66 or 76 characters, formatting the text on the screen as it will appear on the printed page. If not used, the line length will automatically be set to 66 characters — for printing at 10 characters per inch (Pica style).

Chapter 4

OPENING YOUR FIRST FILE

Chapter 4
OPENING YOUR FIRST FILE

The production of presentable documents, reports and letters is important. The Liberator has been designed specifically for this task.

4.1 TITLES

Before commencing to create a document it is necessary to devise a suitable meaningful title, so that it can be retrieved, completed, amended or printed later. The Liberator offers up to 11 characters (but not spaces) to describe the document — although, of course, it is not necessary to use them all. At this stage it is best to open a new document file entitled 'TEXTTEST1', which can then be used with the handbook to check the ease of use of the many text facilities available on the Liberator.

(Note: The term 'file' will be used to cover reports, letters or other individual documents created and stored on the system).

4.2 OPENING A NEW FILE

To open a new file from the main MENU appearing on the screen on start-up, move the highlit block Cursor over 'NEWFILE' with the cursor control keys, and press the ENTER key. The prompt 'Enter file name.....' will appear, the file name TEXTTEST1 should be keyed, actioned by the ENTER key. The screen will then clear, with the message 'INSERT' at the top right of the screen and the flashing character Cursor at the top left. At this stage it is convenient to have a piece of text to hand for keying — the current section of this handbook is eminently suitable.

Key in, at the fastest rate possible, without concern for errors, at least 33 lines of text (more than two full screens), to provide sufficient material for editing tests. Keying can be continued without regard to the end of the screen line — the system will move words to the next line if they are too long for the current line. To provide a clean left margin on the screen, the word-wrapping will operate if the last word plus its following space, will not fit on the current line.

Having completed — however roughly — the first text file, correction and editing can now be attempted, with special attention to the insertion and deletion of sections of text and these are dealt with in detail below.

(Note: The Quick Reference Sheet provides a brief and convenient guide to the main facilities available and should be kept close at hand).

4.3 INSERTION of additional text

Whilst the important facility for the insertion of additional text does not require the use of any dedicated keys, familiarity with the use of the Cursor Controls to reach the desired entry point, is essential. At this stage it is therefore useful to practise the use of the Cursor Control with SHIFT and CTRL to move through words, lines, screens and from start to end of the short test file created.

For newcomers to text editing the simplest method of text insertion is:

a) Position the Cursor at the point in text where an insertion is required, using SHIFT or CTRL as appropriate.

b) Key in the additional characters or words, including the necessary spaces before and after the insertion.

c) Press Cursor left key (←), check correctness of insertion, then move to the next edit point. The text will be automatically reformatted to take into account the inserted material.

With experience and confidence, the user can move direct to the next amendment point, or the start or current end of text, without the need to verify the amendment.

Where larger blocks of text are to be inserted it is more convenient and clearer to open up a gap in the existing text by inserting three Carriage Returns with the ENTER key and then moving the Cursor back to the amendment point. This avoids the constant movement of text following the insertion point, often confusing to the user. When the additional text has been completed, the surplus Carriage Returns can be deleted in the normal way.

4.4 DELETION of unwanted text

Whilst entering text, any error noted immediately can be corrected by the use of the BACKSPACE key (|←■). Press the key once for each character to be deleted, insert the correct characters, then continue keying text.

With experience the O'WRT (Overwrite) facility can be effectively used to replace incorrect words or phrases, without the need first to delete the old text and then to insert the new. The details are given in Chapter 5 — but newcomers are advised to gain experience in the use of the basic text insertion and deletion facilities before moving on to Overwrite.

Larger sections of text are best deleted by the use of the DEL keys in conjunction with SHIFT and CTRL as detailed in the Quick Reference Sheet.

4.5 REVIEWING and EDITING text

Errors found whilst reviewing or editing text can be deleted as follows:

a) Position the Cursor on the first character of unwanted letters or words, using the Cursor Controls in conjunction with SHIFT or CTRL as appropriate.

b) Press either (i) DEL (→I) once for each character to be deleted,

or (ii) SHIFT with DEL (→I) once for each word to be deleted,

or (iii) CTRL with DEL (→I) once to delete to the end of the current line, and once more for each additional line to be deleted.

With experience the user can experiment and find the most logical and convenient method of amendment — for example the use of DEL (I←) with SHIFT or CTRL starting from the space after a word, or the extended use of the Overwrite facility. No method is right or wrong, merely a personal option.

SHIFT/DELETE right (→I) will delete from the current Cursor position to the first character of the next word. Whilst editing, this will permit the neat removal of one word at a time, at the start or middle of a sentence. However, when used on the last word in a sentence or paragraph, it will also delete the full stop and any succeeding carriage returns — causing the start of the next sentence to be placed at the Cursor position. To delete the last word it is therefore preferable to place the cursor on the full stop and operate the SHIFT/DELETE left (I←). This will remove the last word without causing the following text to move up.

4.6 FILE FULL

Each file can be up to 16 blocks long — just over 16,000 characters or 16 screens of text at 66 characters per line. When this limit is reached, the warning 'FILE FULL' will appear at the top right of the screen. The beeper will also sound **but not if it has previously been SILENCED.**

Do not attempt to enter more text as this may result in corruption of the existing text. Open a new file to continue. If, for the sake of neatness and clarity it is required to move some of the existing text to the new file, this can be achieved by using the 'CUT AND PASTE' operation (see Chapter 5).

4.7 DIRECTORY FULL

Up to 30 files may be opened in the directory of Bank A, and up to 23 files in each of Banks B and C, if fitted. When these limits are reached, the instruction 'NEWFILE — DIRECTORY FULL — press ENTER to continue' will appear above the list of files. In order to continue, it will then be necessary to move to another bank (see Chapter 7).

Chapter 5

REPLACEMENT AND MOVEMENT OF TEXT

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Whilst the basic functions of insertion and deletion outlined so far enable the creation and editing of simple text files, they are only the tip of the iceberg. There is a further range of functions available on the Liberator to aid the user in the text creation, editing and amendment process. Using the test file already created, the additional facilities should be worked through once to achieve familiarity with the simple routines involved.

5.1 OVERWRITE — Replacement of text

Where the direct replacement of sections of text is required, the O'WRT (Overwrite) facility can be a valuable tool. This enables any incorrect characters to be overwritten without the necessity for separate insertion and deletion operations.

For example, to change 'air force' to 'Air Force'; position the Cursor over the first character to be changed, press the O'WRT key and key in the new character required — repeat the operation for the second character. On completion of the changes the O'WRT key should then be pressed again to return to normal text mode.

The Overwrite facility is also useful when a false start on a section of text has been made. After moving the Cursor back to the start of text, pressing the O'WRT key will allow the old text to be overwritten by the new — remember to revert to the normal text mode by pressing the O'WRT key again when all the previous text has been covered.

To avoid the unintended loss of correct text ensure that the O'WRT key is pressed again, immediately the amendment is completed. If in doubt press the O'WRT key and check the prompt in the top right corner of the screen.

(Note: The only keys that can be used without overwriting text in O'WRT are the Cursor Controls).

5.2 CUT AND PASTE — Movement of blocks of text

The marking and movement of blocks of text within and between document files is referred to as a **'CUT AND PASTE'** operation, with the connotation of scissors and the paste pot or glue pen. On the Liberator the operation is performed by defining the relevant text area (MARK), transferring it from its present position to a temporary holding store (CUT or COPY), locating the Cursor at the new position for the text in the current or another file and finally inserting it into the file at that point (PASTE).

'CUT AND PASTE' is actioned in two parts, first using the MARK key and then the COMMAND key.

The temporary holding store for the text involved in the move is referred to as the Paste Buffer and is a special area in the Liberator's memory for this purpose. It does not eat into the users file memory, but it is limited to 2 blocks (approximately 2,000 characters or 2 screens of text) that can be moved in one operation. The current contents of the Paste Buffer can be 'pasted' repeatedly into a number of locations, but is cleared and reset each time fresh 'marked' text is inserted by the operation of 'CUT' or 'COPY'.

5.3 MARK — Marking of text

After selecting, with the Cursor, the starting point of the text for action, press the MARK key at the top left of the keyboard. The highlit word 'MARK' will appear at the top right of the screen. Pressing the key again without any Cursor action will cancel the marking and return the user to the normal text mode.

The Cursor Control keys (again with SHIFT and CTRL as appropriate) should be used to highlight (MARK) the area of text to be actioned as follows:-

(←) one character to the left of the Cursor.

(→) the character under the Cursor.

(↓) a complete line of characters starting with the character under the Cursor, moving right and continuing on to the next line down, as necessary.

(↑) a complete line of characters starting with the character to the left of the Cursor, moving left and on to the next line up, as necessary.

The additional use of SHIFT with the relevant Cursor Control key will highlight one word to the left or right of the Cursor, or one screen of text up or down. With CTRL it will highlight to the start or end of the current line, or to the start or end of the file. The options are shown

diagrammatically on the Quick Reference Sheet. The Space Bar can be used during 'marking' to check whether the 2 block capacity of the Paste Buffer will be exceeded — if so the beeper will sound.

(Note 1. A reverse movement of the Cursor will remove the highlighting.

2. Pressing the MARK key a second time without any text highlit, will cancel the marking operation and return the user to the normal text insertion mode).

When 'marking' has been satisfactorily completed, with a visual check of the highlit area, the MARK key should be pressed again. The options now available will appear at the right of the screen with a prompt line at the top of the screen explaining the option currently covered by the Cursor block. Moving the Cursor block through the options with the Cursor Control key (↓) will identify the facilities available. They are, in alphabetical order, COPY, CUT, DELETE, and PRINT.

5.4 DEALING WITH MARKED TEXT

This section deals with the CUT AND PASTE facilities, PRINT will not be covered at this point. The choice between the first three will be determined by whether the user wishes to move the 'marked' text without losing the text involved — COPY, removing the text involved — CUT, or simply to discard the 'marked' text from the system — DELETE.

After selecting the desired option with the Cursor Control and pressing ENTER to action, the list of options will disappear and the user will be returned to the current file.

(Note: If more than 2 screens of text have been 'marked' for transfer by COPY or CUT, the message "BLOCK TOO BIG" will appear at the top right of the screen. Pressing MARK once will remove the message, and will leave the user ready to 'mark' a smaller area. This restriction does not apply to DELETE and PRINT options.)

If the DELETE option has been selected it is assumed that the preparation of the text file will continue with the selected area removed.

If COPY or CUT has been selected then it is assumed that the text transferred to the Paste Buffer is to be moved, either to another position in the same file or to another file. Within the same file, the Cursor should be moved to the precise position for the marked text to be 'pasted'.

The movement of the marked text to another file requires more than the one test file currently held on the system and will be dealt with in Chapter 6, Additional Text Facilities.

5.5 PASTE — Placing marked text in new position

With the Cursor at the insertion point, press the COMMAND key once to show the options now available at the right of the screen, with the explanation of the current option on the top line of the screen. Moving the Cursor through the options with the Cursor Control key (↓) will identify the facilities available. They are FIND, MENU, MERGE, PASTE, PRINT and WIDTH, although only the PASTE option will be covered in this section.

Select the PASTE option with the Cursor Control (↓) and press the ENTER key. The option list will disappear and the contents of the Paste Buffer will be placed in the current file, starting at the Cursor point. Further file creation or editing can then continue.

Chapter 6

ADDITIONAL TEXT FACILITIES

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To demonstrate effectively the wide range of facilities available from the Liberator text processing system a second short file is required. To create one, select NEWFILE from the MENU and action with ENTER, enter the file name TEXTTEST 2. Again key in text from the handbook, this time one screen of text will be sufficient.

6.1 COMMAND — MENU option

Pressing COMMAND on completion of the second file will show the options available. Selecting MENU with the Cursor and pressing ENTER will return the user to the Main Menu with the two files TEXTTEST1 and TEXTTEST2 now listed.

6.2 PASTE — from another file

If this section of the handbook is being actioned immediately after the last, the Paste Buffer will still contain the text previously marked. If not, select TEXTTEST1 with the Cursor, press ENTER and carry out the steps in Chapter 5, Section 5.3, plus using the COPY option, to ensure that sufficient text material is in the Paste Buffer.

From the Main Menu select FILE and press ENTER, using the Cursor select TEXTTEST2, press ENTER, then move the flashing character Cursor to any suitable point in the file for the marked text.

Press COMMAND, select PASTE, then on pressing ENTER the marked text from TEXTTEST1 will be placed in TEXTTEST2, starting at the Cursor point.

6.3 MERGE — Inserting one file into another

An alternative method of including larger or more frequently used sections of text into another file, is available using the MERGE facility. Standard paragraphs or letter headings are two examples of permanent text suitable for use with MERGE. When creating long reports, it is often more convenient to open up a file for each section, then MERGE them on completion of the work. This avoids moving around large files when editing and amending and also allows sections to be printed separately for review.

To MERGE file TEXTTEST2 into TEXTTEST1, select and enter TEXTTEST1 (using the COMMAND key and the MENU option to return to the Main Menu if necessary). Using the Cursor Controls, choose a suitable point for the insertion of the other file, press COMMAND and select and enter MERGE. The prompt line will then request the name of the file to be included and TEXTTEST2 should be selected and entered. The contents of TEXTTEST2 will then be deposited in TEXTTEST1, starting at the Cursor point. The contents of TEXTTEST2 will still be intact under that file name.

6.4 FIND — Finding a set of characters in a file

The FIND option is invaluable in the reviewing and editing of text, particularly in large files. It enables the user to move rapidly to any point ahead in the file by nominating a unique sequence of up to 16 characters (and/or symbols) at, or near, the desired point in the file. In creating longer reports, the use of unique paragraph numbers will enable rapid location of any point in the file by the use of only a few characters or symbols (e.g. '6.10').

The FIND option distinguishes between UPPER CASE (Capital) and lower case (small) characters and would therefore locate 'KEYBOARD' as a heading separately from 'keyboard' or even 'Keyboard' within the body of the text. If used to correct a word misspelt, or without an initial capital letter (e.g. 'air force' instead of 'Air Force') throughout a file, it is only necessary to enter the word — in its incorrect form — once. It will remain on the FIND entry line, requiring only the reselection of FIND and a depression of the ENTER key to action the finding operation.

It is essential to remember that FIND only locates entries **ahead** in the file. If a general search of the whole file is required, return to the start of the file with CTRL + Cursor key (↑) before commencing the FIND operation.

To check the FIND facility, enter the file TEXTTEST1 as before, leave the Cursor at the start of the file, and locate a word near the base of the screen and make a note of it. Press the COMMAND key, select FIND from the option list and press ENTER. The prompt line will request the entry of the

characters for search and the chosen word should be keyed in. Note that errors in entry can be corrected with the backspace key (|←■).

Pressing the ENTER key will cause the options and prompt line to disappear, from over the text, with the flashing character Cursor on the first character of the chosen word.

Repeat the check above, choosing a common word like 'and' or 'the' using the COMMAND key and FIND option as before. On return to the file, repeat the use of the COMMAND key and FIND option, but instead of entering a new set of characters, simply press ENTER and the Cursor will be in the file at the next occurrence of the word.

6.5 WIDTH — Selecting the number of characters per line

If the file is to be printed out, it is preferable to complete the review and editing in the same format as the end result, referred to as 'what you see is what you get'.

The WIDTH facility enables the screen line to be reformatted from 66 characters for subsequent printout at 10 cpi (characters per inch) — Pica style, to 76 characters for subsequent printout of 12 cpi — Elite style.

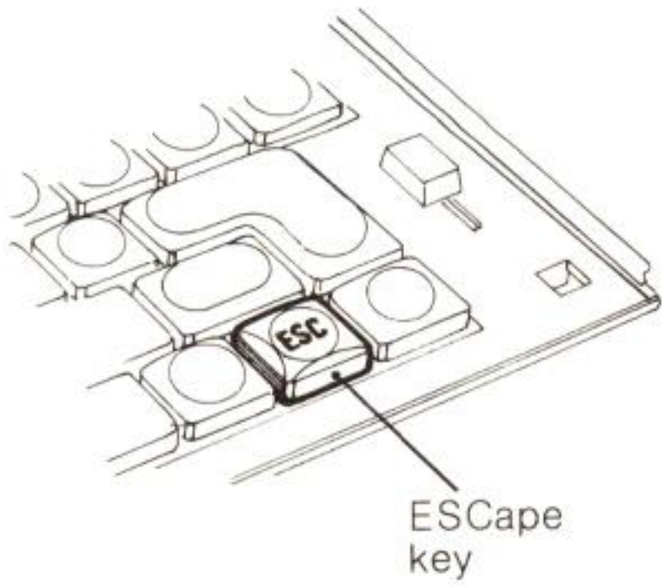
It is not necessary to use one line width only for any one file, the text creation can be performed at 76 and the review and editing at 66.

When using COMMAND with the 76 characters per line width setting, the options cover some of the text at the right of the screen. If this proves distracting, the use of the 66 character line will avoid the problem.

When centring headings or indenting paragraphs it is essential to operate in the line width appropriate to the final printout.

The remaining facility from the COMMAND options is PRINT and this is dealt with in Chapter 8.

6.6 FINISHING TOUCHES TO TEXT — using ESCape



The Liberator makes provision for underlining, bold characters and page breaks. To use these facilities the key marked ESC (for escape), at the bottom right of the keyboard, is brought into play and is pressed once and released for each of the following operations.

To **underline** a specific heading, or word(s), press and release the ESC key then the letter U key at the character position immediately before the heading, to switch to underline. This will produce a marking symbol

UNDERLINING

(for underline on) at this point — this is a non-print character which will not take up any space on the printed document. At the conclusion of the heading, press and release the ESC key, and then the letter N key, to return to **normal** text. This will produce a marking symbol

NORMAL

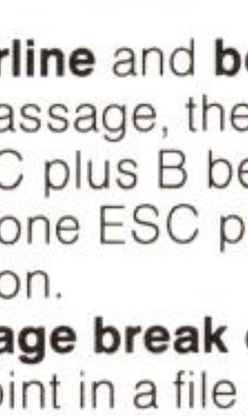
(for return to normal), again not printed.

Similarly to produce **bold** characters, ESC followed by B should precede the passage and it should be ended with ESC followed by N. The non-print screen symbol for bold is:

BOLD

If both **underline** and **bold** are required for the same passage, then press ESC plus U and ESC plus B before the passage, only one ESC plus N is required at the conclusion.

To force a **page break** on the printer at any specific point in a file (for example, to avoid a single first line of a long paragraph being left at the bottom of a page), press ESC plus P (for page break). This will produce the non-print symbol



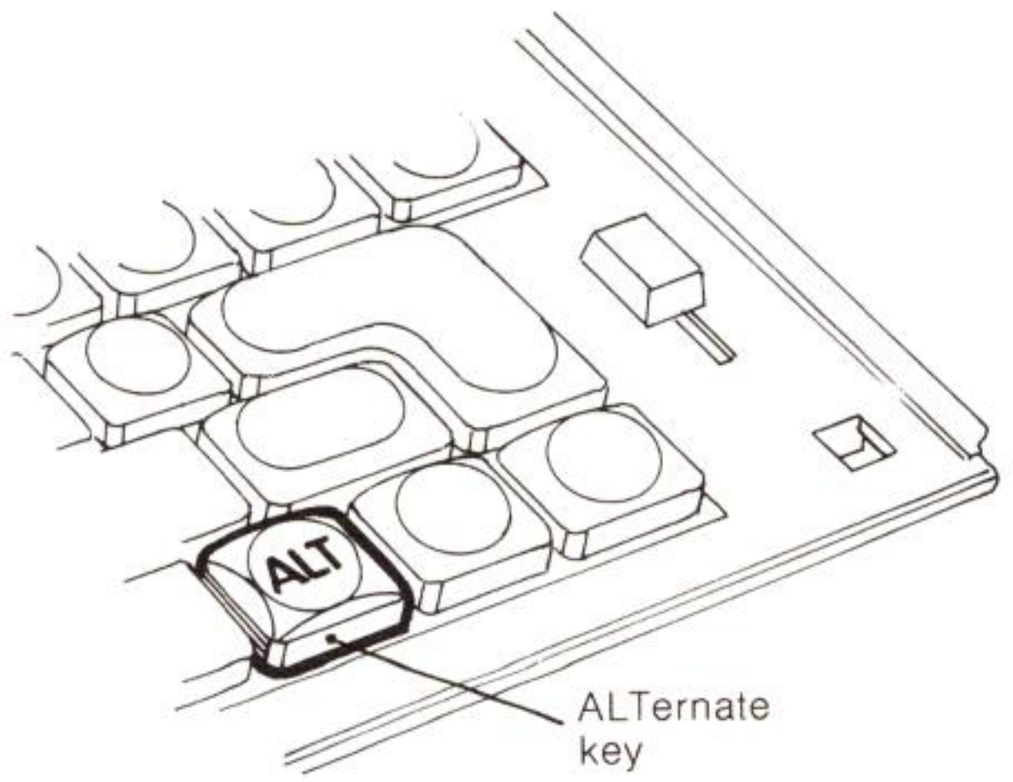
PAGE BREAK

at the start of the line, to indicate the break point.

(Note: When an edited file is ready for printing, the position of page breaks (page ends) can be readily checked and adjusted on the Liberator. Positioning the Cursor at the start of the file, and pressing SHIFT plus cursor control (↓) three times will leave the Cursor on the last line of the first page — or at the end of the file if less than one page. Pressing SHIFT plus cursor control (↓) four times thereafter will leave the Cursor on the last line of succeeding pages. An earlier page break can be actioned by pressing the ESCAPE key, then P; or a page break deferred by the insertion of additional blank lines with the ENTER key.)

For convenience these sequences are shown on the label on the ledge at the rear of the keyboard.

6.7 FINISHING TOUCHES TO TEXT — using the ALTernate keys



To provide access to and printing of lesser used, but sometimes essential characters, the Liberator provides a limited number of alternative characters obtained by the use of the ALT key. These characters, also displayed on the label on the ledge at the rear of the keyboard, are achieved by holding down the ALT key whilst pressing the indicated keytop.

The alternative characters, all obtained from the top row of the keyboard are:-

STANDARD CHARACTER:

1 2 4 5 6 7 8 9

ALTERNATE CHARACTER:

¦ ~ \ [ ] ` { }

Note — the Alternate Character for 1 varies on print out depending on which printer and print mode are selected.

The character shown above corresponds to the character displayed on the screen and also that printed out by the Dot Matrix printer in Draft Quality mode.

If the Near Letter Quality mode on the Dot Matrix printer is selected, or if using the Daisy Wheel printer, then the Alternate Character printed for 1 will be | (a vertical line).

Chapter 7

SUMMARY OF MENU OPTIONS

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7.1 MAIN MENU

Options available direct from the Menu screen (Screen help and prompt lines are shown in parentheses)

'BANK Change the memory bank'.
ENTER
'Select the memory bank' (on screen — ABC as fitted)
Cursor over bank and ENTER — new bank file list appears

'DELETE Erase a file'.
ENTER
'Erase file XXXXXXXXX'
Cursor over selected file and ENTER
'Confirm (Y/N)'
Enter N — no deletion action, user returned to Main Menu
Enter Y — file deleted and user returned to Main Menu
Note — If file has previously been PROTECTED, procedure will be: Enter Y
'DELETE — PROTECTED FILE — Press ENTER to continue'
ENTER — user returned to main menu (file retained)

'FILE Edit an existing file'.
ENTER
'Select file name'.
Cursor over selected file and ENTER — enters file at start

'NEWFILE open a new file'.
ENTER
'Enter file name.....'
Key in file name
ENTER — clear screen with Cursor at top left and the highlit word INSERT at top right
(Note: If the file name already exists that file will be shown.)

'PRINT Print a file'.
ENTER
'Select file name'
Cursor over selected file and ENTER
'Daisywheel (or Matrix) printer — stop at each page (Y/N)?'
Confirm correct printer type (changing selection with SETPRINT option if necessary) then
Enter Y if single sheets to be used or N if continuous stationery.
Actions and returns user to Main Menu for next selection

'PROTECT Change file protection'.
ENTER
'Change protection of file named'
Cursor over selected file and ENTER — file protected or unprotected as appropriate

'RENAME Change a file's name.'
ENTER
'Rename file.....'
Cursor over selected file and ENTER
'Rename file .....as.....'
Rename and ENTER — screen blanks and file list reappears with file renamed and list reorganised
(Note: If the file name entered already exists, an error message is displayed — ENTER returns user to the Main Menu without action)

'SETPRINT Set the type of printer'.
ENTER
'(M)atrix or (D)aisywheel?'
Enter, M if Dot matrix printer connected or D if Daisywheel printer connected
ENTER — actions and returns user to Main Menu

'UTILITY Enter the Utilities Menu'.
ENTER — the less used options will appear

7.2 UTILITY MENU — Options available from Utility sub-menu

'CLEAR Clear the paste buffer' (for security reasons).
ENTER
'Confirm clearance of the paste buffer (Y/N)?'
Enter N — No clearance, returns user to Main Menu
Enter Y — paste buffer cleared and user returned to Main Menu

''CLOCK Set the date and time'.
ENTER
'DAY' — use Cursor control keys right or left to select

current day of the week — ENTER
'DATE' — use Cursor control keys up or down to set current date — ENTER
'MONTH' — use Cursor control keys right or left to select current month — ENTER
'YEAR' — use Cursor control keys up or down to set current year — ENTER
'HRS/MINS' — use Cursor control keys up or down to set current hour (note: 24 hr. display) — ENTER. Then use Cursor control keys up or down to set next minute ENTER when minute reached — returns user to Main Menu

'COPY Copy a file'.
ENTER
'Copy from A' — on screen A B C (Memory banks as fitted)
Select bank and ENTER
'Copy from A.....'
Select file and ENTER
'Copy from A Filename to A'
Select bank and ENTER
'Copy from A Filename to B.....'
Enter new file name and ENTER

'PRN-ESC Alter the printer escape sequences.
ENTER to set up sequences for a different printer — for experienced computer users.

'RECEIVE Receive a file via S2'.
ENTER
'Enter file name .....'
ENTER
'Ready to receive — characters received = '

'SEND Send a file via S2'.
ENTER
'Select file name .....'
ENTER
'Press ENTER when receiver is ready'
ENTER
'Characters sent = '

'SETUP Configure the serial ports.'
ENTER
'Configure Port S(i) or S(2)'
ENTER to alter the parameters on the serial output ports — for use by experienced computer users.

'SILENCE Silence the beeper'.
ENTER
'Silence the beeper — Confirm (Y/N)'
Enter Y or N
(Note: will not silence the beeper on LOW BATTERY warning)

'WIPE Erase ALL files in the current bank'.
ENTER
'Erase ALL files in this bank — Are you sure (Y/N)'
Enter Y or N
Enter N — returns user to Main Menu — files retained.
Enter Y — cautionary prompt appears
'About to erase ALL files in this bank — Continue? (Y/N)'
Enter N — returns user to Main Menu — files retained
Enter Y — actions and returns user to Main Menu

7.3 TEXT MENU — Options available by pressing COMMAND key

'FIND Finds the next occurrence of entered characters'.
ENTER
'Enter up to 16 characters to search for'
Enter search characters.
ENTER — if match found, Cursor will move to first occurrence, if not 'NOT FOUND' will appear at top right of screen and user will be returned to text. If subsequent occurrences of characters required return to FIND and ENTER without amending entry.

'MENU Return to Main Menu saving file'.
ENTER — actioned

'MERGE Inserts another file at cursor position' e.g. a letter heading.
ENTER — Screen changes to Main Menu with prompt

'Select file name'
Move Cursor over file to be merged.
ENTER — file selected is included in the new file

'PASTE — Inserts text which was 'COPY'ed or 'CUT' using the 'MARK' key'.
ENTER — actioned
(Note: Cursor *must* be positioned at desired entry point *before* COMMAND and PASTE selected)

'PRINT — Prints this file'.
ENTER
'Daisywheel (or Matrix) printer — stop at each page (Y/N)?'
Confirm correct printer type (changing selection with SETPRINT option if necessary) then
Enter Y if single sheet to be used or N if continuous stationery.
Prints the file and returns user to file

'WIDTH — Sets screen and print line length'.
ENTER — Cursor is over 66 and prompt line is:-
'66 cpl — for viewing, and printing at 10cpi (Pica style)'
ENTER — actioned — text will appear on the screen set to 66 characters per line (cpl).

Alternatively moving the Cursor to 76 will change prompt to:-
'76 cpl — for viewing, and printing at 12 cpi (Elite style)'
ENTER — actioned — text will appear on the screen set to 76 cpl.

7.4 MARK MENU — Options available by pressing the MARK key

On pressing the Mark key after positioning the cursor at the required starting point, MARK will appear highlit at the top right of the screen.

On completion of the 'marking' process with the cursor controls, the MARK key should be pressed again, making available the following options:

'COPY — Copies highlit text to the Paste Buffer'.
ENTER — actions and returns user to cursor position

'CUT — Removes highlit text and puts it in the Paste Buffer'.
ENTER — actions and returns user to cursor position

'DELETE — Deletes highlit text from the file'.
ENTER — actions and returns user to cursor position

'PRINT — Prints highlit text'.
ENTER
'Daisywheel (or Matrix) printer — stop at each page (Y/N)?'
Confirm correct printer type (changing selection with SETPRINT option if necessary) then
Enter Y if single sheets to be used or N if continuous stationery.
Prints the highlit text and returns user to file.

Chapter 8

PRINTING

Chapter 8
PRINTING

8.1 GENERAL

The production of neatly presented text has tended to be the most complicated part of the text creation, editing and output process on small computer systems. However, in the development of the Liberator text processing system, the emphasis has been on the simplification of the output process. Printing of files can be initiated from the Main Menu or from within the file; in addition, selected sections of a file can be printed using the MARK facility.

Without any user adjustments or settings, the system will produce, automatically, printed pages of 60 lines with a 1″ left margin and similar top and bottom margins, suitable for most office documents. The choice of 66 cpl (for Pica style printing at 10 characters per inch) or 76 cpl (for Elite style printing at 12 characters per inch) is available, with the selection showing the text on the screen in the layout it will be printed.

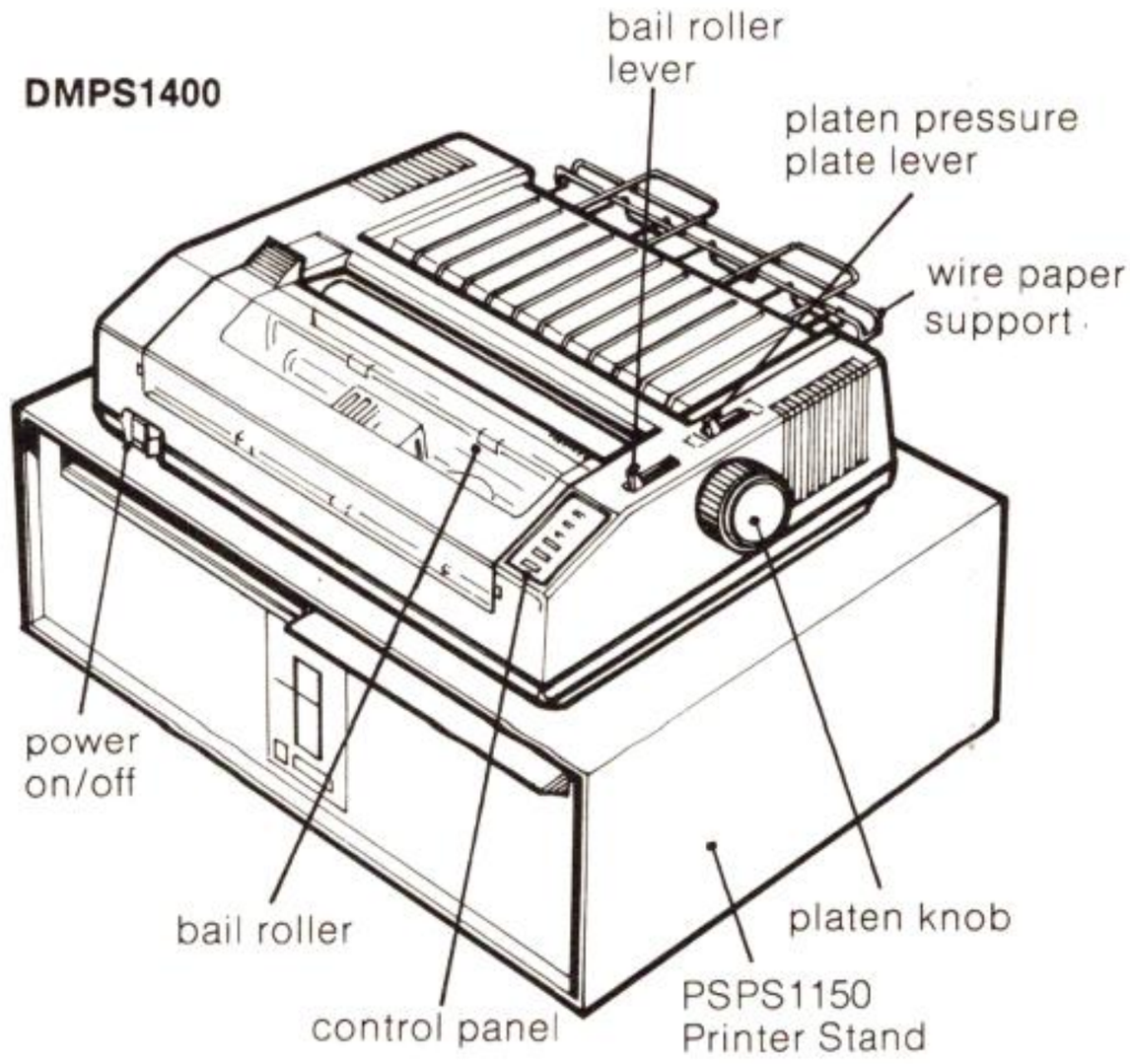
S5/8 Interconnection

The Liberator printing system utilises the recently agreed PSWP (Public Sector Working Party) S5/8 interconnection standard, designed specifically for small systems and based on the common DIN type connectors used widely and very effectively in domestic audio and hi-fi equipment.

Simplification of the printing process can only be achieved with designated printers and the Liberator text processing system therefore includes two low-cost print stations. Both printers are fitted with a lead terminated with a DIN type plug for direct connection into the Liberator's output socket (Serial Port, S1).

8.2 PRINT STATIONS

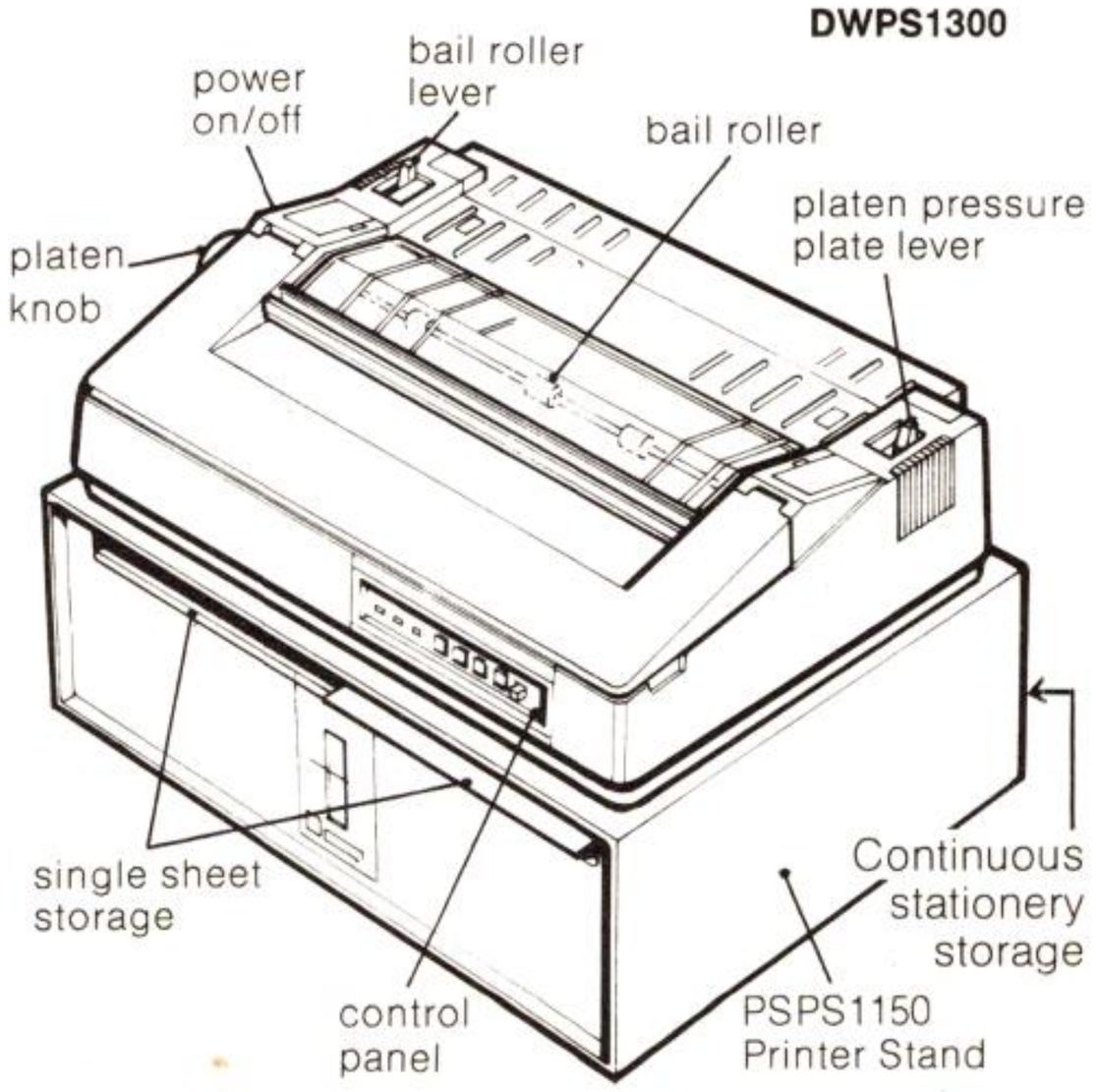
DMPS1400



The two print stations are:-

a) The **Liberator DMPS1400** — a high quality dot matrix unit, with a fast draft mode as normal and a slower very near letter quality mode selected by front panel switching.

DWPS1300



b) The **Liberator DWPS1300** — a full letter quality unit, with the simplest of daisy wheel changes. With the standard Courier 10 daisy wheel provided, printing can be at 10 or 12 characters per inch by front panel switch selection.

Printer Stands

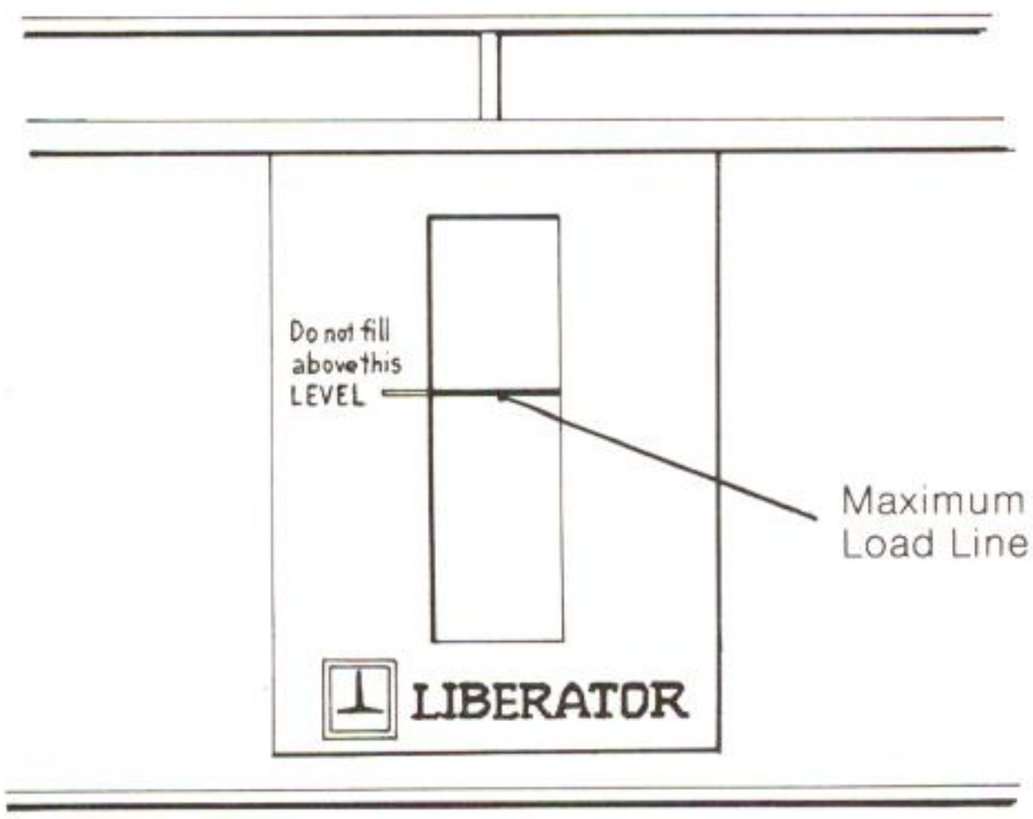
Both printers are supplied with the purpose-built **Liberator Printer Stand, Model PSPS1150,** which incorporates a large storage compartment at the rear for continuous stationery and 2 smaller compartments at the front for single sheet stationery. Two styles of A4 paper, plain and headed, can be stored in these compartments. Retaining clips for mains and printer cables are also fitted. There are two separate storage compartments at the rear to hold cables and mains lead, and the spare ribbon and (with the DWPS1300) spare daisywheel.

8.3 PRINTING FROM THE LIBERATOR DMPS1400

The Liberator Dot Matrix Print Station should be unpacked and set up in accordance with the instructions supplied.

a) Printing on Continuous Stationery

A pack of 12″ drop continuous stationery should be inserted into the rear compartment of the stand, with the height of the pack not extending above the maximum load line on the transparent front slot.



Printer Stand
PSPS1150

(Note: 1. The Liberator printed page size is based on 12″ drop continuous stationery to provide neat A4 photocopies of output.
2. Loading paper above the load line may result in the stationery failing to feed consistently).

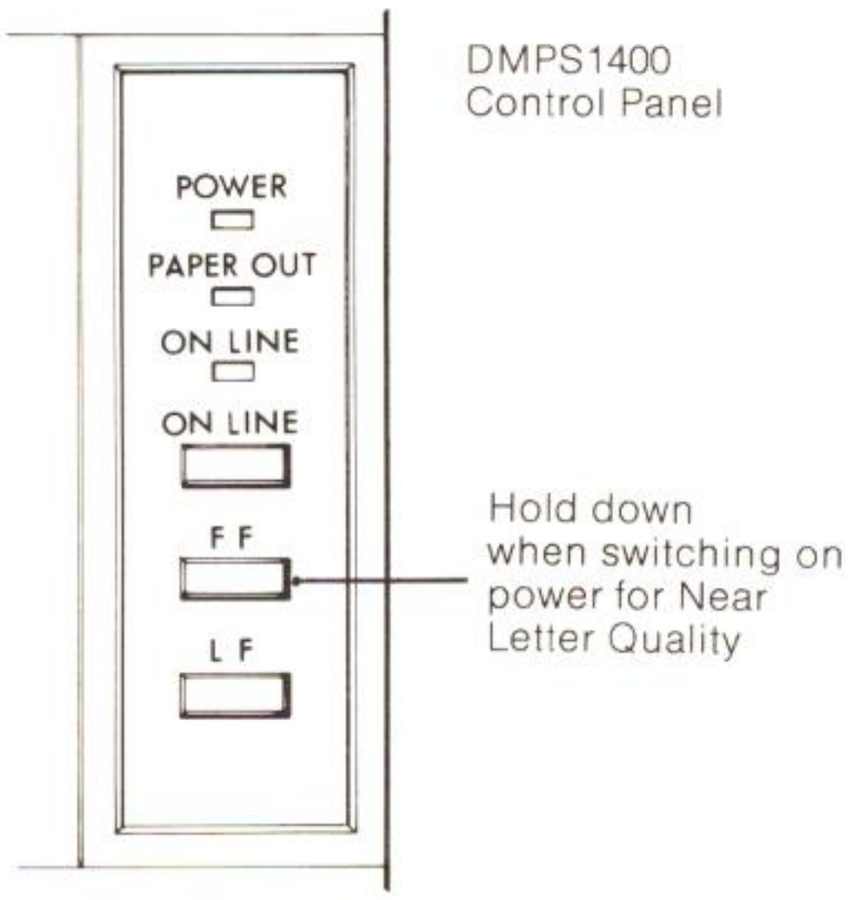
After removing the rear paper cover the continuous stationery should be fed through the wire paper support and on to the plastic drive sprockets. After slackening the sprocket clamping lever, the left-hand sprocket should be moved to line up the extreme left edge of the perforated strip of the continuous stationery with the fourth dot from the left on the transparent cover (leaving the final paper edge in line with the ninth dot). The right-hand drive should be subsequently adjusted to hold the paper firmly, but not over-tight. The paper can then be fed to the print position, with the perforation level with the plastic tear-off slot — using the platen knob at the right. After checking that the bail roller is against the paper (lever above the printer control panel), and the platen pressure plate lever (behind the bail control) is set to 'OPEN', the rear paper cover can now be replaced, leaving the printer ready for printing on the continuous stationery.

The printer lead should now be plugged into the Liberator printer connector output socket S1 at the rear of the unit.

NOTE — **always** switch **on** the Printer **before** connecting the Liberator.

The file for output must now be in its final format (66 or 76) for printing and providing the Liberator has not been reset for the Daisy Wheel Printer (if in doubt check the SETPRINT option on the Main Menu) all is ready for printing.

No other action is required for Elite style (76 character line) or Pica style (66 character line) fast draft mode, before



DMPS1400
Control Panel

switching on the printer power. However, for near letter quality mode in Pica style, it is necessary to hold down the FF button (on control panel at the right of the printer translucent cover) whilst switching the mains power on.

Pressing ENTER with the rectangular block cursor over the PRINT option from the Main Menu, within a file, or from MARK, will initiate the printing routine. The prompt line will show 'Daisywheel (or Matrix) printer — stop at each page (Y/N)?'. Confirm that the correct printer type is shown (changing selection with SETPRINT option if necessary). With the continuous stationery properly set, N should be entered, causing the printing to commence. On completion, the printer will automatically feed the paper to the next perforation point.

b) Printing on Single Sheets

The Liberator DMPS has been specially modified to allow the use of single sheet paper feed, without the need to remove the continuous paper. To prepare for single sheet use, simply wind the continuous stationery back until the 'paper out' warning is activated. (Note — some early units may not have this modification in which case it will be necessary to completely remove the continuous paper before feeding in single sheets).

The required sheet should be fed at the back of the platen roller, the platen pressure lever moved to 'CLOSE' (to disengage the continuous paper drive) and the paper fed with the platen roller knob to bring the top of the sheet in line with the plastic tear-off slot. The left edge of the paper should be in line with the ninth dot (two from the first solid line) on the transparent cover.

Pressing ENTER with the rectangular block cursor over the PRINT option from the Main Menu, within a file, or from MARK, will initiate the printing routine. The prompt line will show 'Daisywheel (or Matrix) printer — stop at each page (Y/N)?'. Confirm that the correct printer type is shown (changing selection with SETPRINT option if necessary). With the first sheet properly set, Y should be entered, causing the printing to commence. At the end of the first page the sheet will eject, the next sheet should be loaded and the ENTER key pressed. This procedure should be continued until printing of the file is completed.

If a return to continuous paper printing is then required, simply move the pressure lever to 'OPEN', open the bail roller with the other lever and hold down the Line Feed (LF) button until the paper reaches the tear-off slot.

8.4 PRINTING FROM THE LIBERATOR DWPS1300

The Liberator Daisy Wheel Print Station should be unpacked and set up in accordance with the instructions supplied.

a) Printing on Continuous Stationery

The standard Daisy Wheel printer is not equipped with a tractor feed mechanism and we do not recommend its use with continuous stationery as, with friction feed alone, this printer may jam. However, tractor feed mechanisms are available upon request.

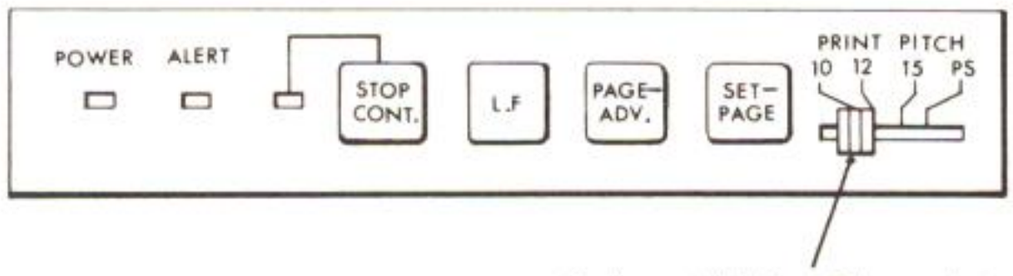
b) Printing of Single Sheets

Locate the brown paper guide behind the platen roller to a point 1″ from the left-hand end. The required sheet should now be fed over the back of the printer and under the roller, with the paper pressure lever (at the rear right of the printer) open — in the forward position and the paper moved to the printing position, with the bail roller (lever at the rear left) in the forward — open — position. The paper should then be straightened and close against the paper guide, and, with the bail roller closed, the top edge left only just above the bail bar. The translucent cover can then be closed to reduce the noise level. The printer connector lead should now be plugged into the Liberator printer output socket S1 at the rear of the unit.

NOTE — **always** switch **on** the printer **before** connecting the Liberator.

Pressing ENTER with the rectangular block cursor over the PRINT option from

DWPS1300 Control Panel



Select '10' for Pica style

Pressing ENTER with the rectangular block cursor over the PRINT option from the Main Menu, within a file, or from MARK, will initiate the printing routine. The prompt line will show 'Daisywheel (or Matrix) printer — stop at each page (Y/N)?. Confirm that the correct printer type is shown (changing selection with SETPRINT option if necessary). With the first sheet properly set, Y should be entered causing the printing to commence. At the end of the first page the sheet will eject, the next sheet should be loaded and the ENTER key pressed. This procedure should be continued until printing of the file is completed.

8.5 PRINTING SUMMARY

1 PRINTER POWERED?
2 CORRECT PAPER LOADED AND AT EXIT POINT?
3 CONNECTOR LEAD PLUGGED IN TO LIBERATOR?
4 MORE THAN ONE PAGE — PAGE BREAKS CHECKED?
5 'SETPRINT' SET FOR THIS PRINTER (D or M)?
6 'WIDTH' SET FOR PRINT LAYOUT (66 or 76)?
7 'PRINT' SELECTED FROM MENU, FILE OR MARK?
8 STOP FOR PAPER AT EACH PAGE (Y or N)?

— PRINTING STARTS —

Chapter 9

ACCESSORIES AND PERIPHERALS

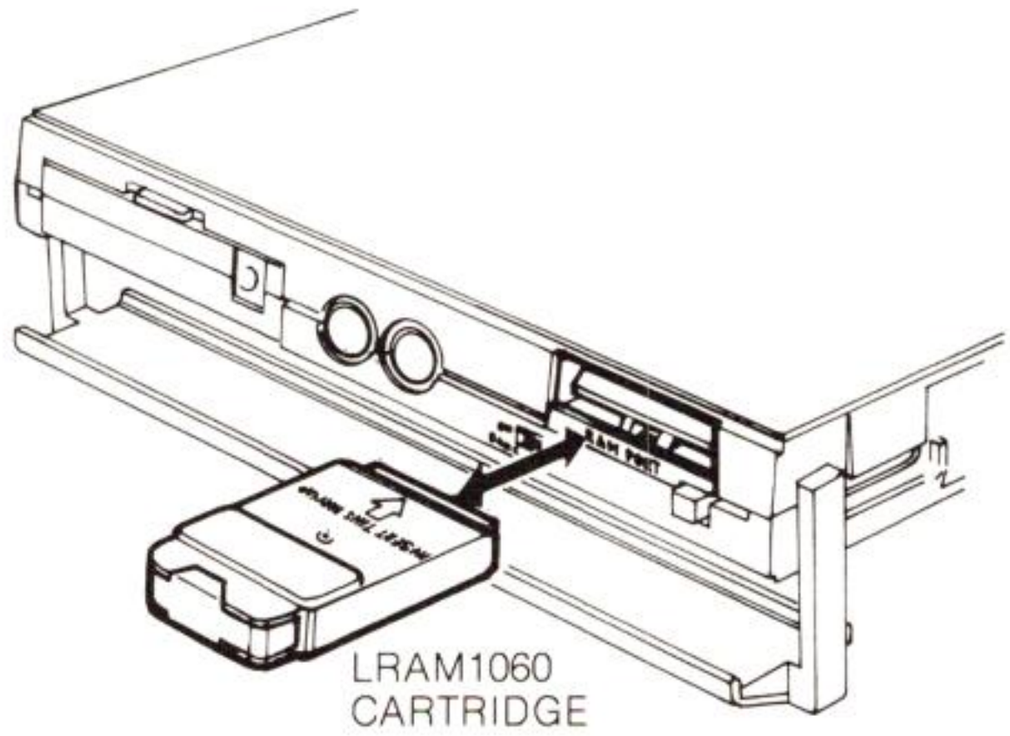
Chapter 9
ACCESSORIES AND PERIPHERALS

9.1 ADDITIONAL MEMORY CARTRIDGE, LRAM1060

GENERAL

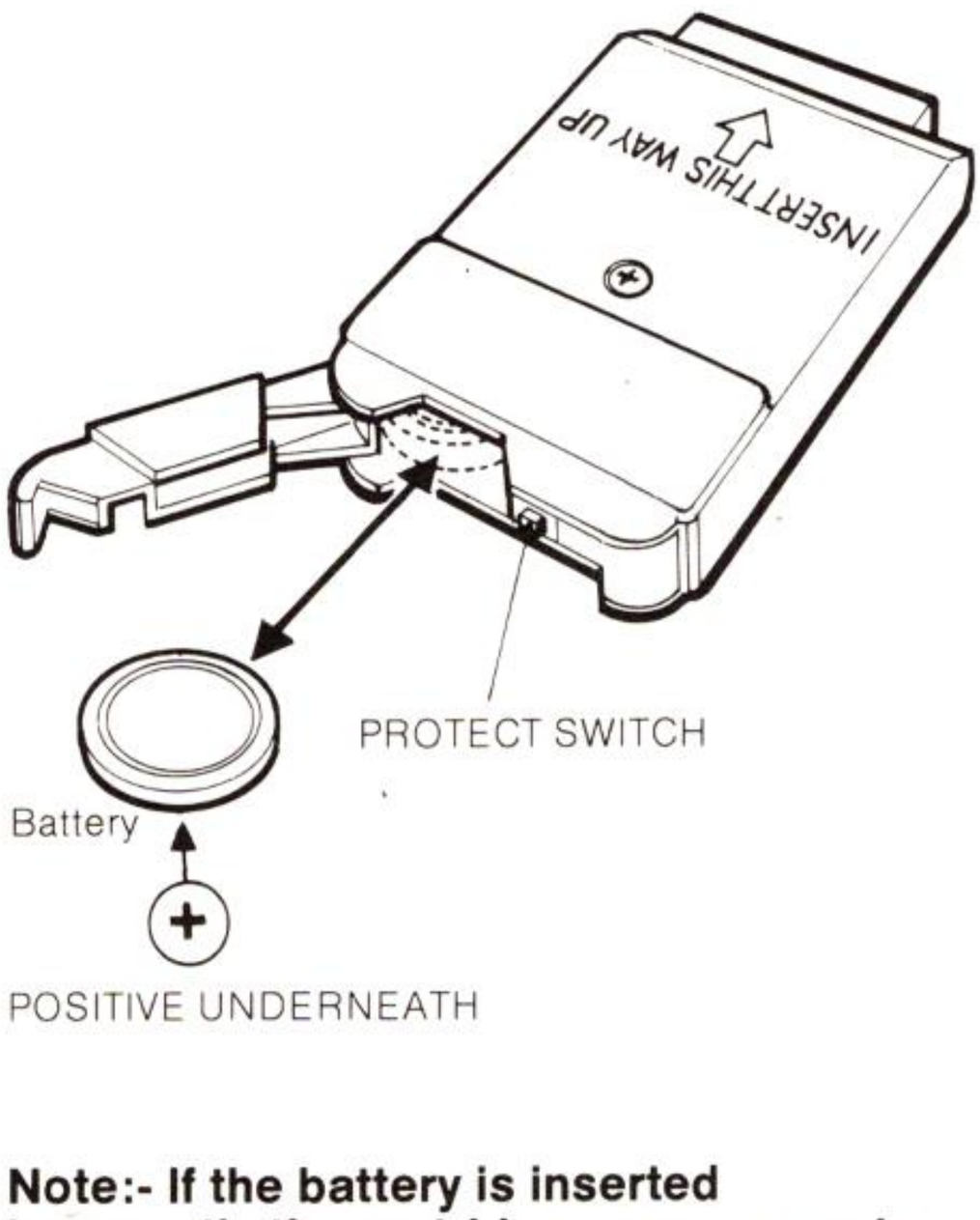
Each self-powered LRAM1060 cartridge, provides 23 blocks of additional working store, and is presented as Bank C in the Liberator when inserted.

PLEASE READ THE FOLLOWING INSTRUCTIONS CAREFULLY TO OBTAIN MAXIMUM BENEFIT.



Instructions for use

1 The battery supplied (type VARTA 2032 button cell or equivalent) should be unpacked and inserted into the cartridge, **WITH THE +VE SIDE FITTING UNDER THE BATTERY CLIP.**



Note:- If the battery is inserted incorrectly the cartridge may appear to work, but the files which have been created will not be saved when the cartridge is removed.

2 Before inserting the cartridge, the Protect switch at the rear of the cartridge should be in the **'ON'** position.

3 Ensure that the Liberator is switched **OFF** (closed) before inserting the cartridge.

4 Insert the cartridge into the RAM PORT.

5 After insertion, the Protect switch on the cartridge should be moved to the **'OFF** position. If this is not done the message 'PROTECTED BANK — press ENTER to continue' will appear on the Liberator Screen when attempting to access a File in Bank C.

6 Selecting BANK from the Main Menu will then show Bank C in addition to A (and B if fitted). By placing the cursor over C and pressing ENTER, the LRAM1060 cartridge will be selected and all the facilities of the Liberator will be made available, as with the other Banks.

7 Before removing the cartridge, the machine should be returned to Bank A and then turned off (closed) and the Protect switch on the cartridge moved to the **'ON'** position.

8 LRAM1060 cartridges should be stored carefully and away from any magnetic fields.

9 To ensure that the files stored in a cartridge are not currupted or lost, the battery should be changed every SIX MONTHS.

10 To change the battery without loss of files, the cartridge should be inserted into the Liberator and the machine switched on. Remove the cartridge cover and the battery and insert the new battery in accordance with the above instructions.

Chapter 10

TECHNICAL SPECIFICATION

Chapter 10
TECHNICAL SPECIFICATION

THE LIBERATOR PORTABLE TEXT PROCESSOR

DISPLAY

Liquid Crystal Display (LCD)	;	80 character by 16 lines
Characters displayed	;	Full ASCII character set with descenders on lower case, plus print control characters.
Screen resolution	;	128 by 480 dots.
Character Cell	;	5 by 7 plot in a 6 by 8 dot cell.
Viewdata Mode	;	Screen presents two 40 character by 12 line sections.
Contrast	;	User adjustable Contrast Control.

KEYBOARD

QWERTY (UK) type as standard (International layouts available).	;	62 low profile dished keys including Cursor Control block in NSEW configuration.
Key details	;	2.5mm travel on 19.5mm grid.

MEMORY

Provided by CMOS Static RAM	;	Model LPTP1001 has 40 Kbyte of User File Memory Model LPTP1002 has 64 Kbyte of User File Memory

All memory is non-volatile, retaining data on power down.

An on-board memory back-up battery is fitted to provide a RAM retention supply for a period fo 50 hours (worst case) and 500 hours typical, depending upon RAM consumption — if the main battery pack is removed or fully discharged.

ADDITIONAL MEMORY

Provided at the RAM Port by optional plug-in RAM cartridges, LRAM1060, each with 24 Kbyte of User File Memory.

ROM

32 Kbyte of Read Only Memory (ROM) is provided on-board for the Liberator operating system, user interface, text processor and utility software.

External application software supported via a ROM Cartridge can be plugged into the Expansion Port. This external ROM can be configured up to 16 Kbyte which is overlaid on the main ROM memory.

CONNECTIONS

Two serial (S5/8) interfaces via 8 pin DIN connectors are mounted at the rear of the Liberator. The inputs and outputs to and from these interfaces are software selectable.

Devices which can be connected include Liberator-compatible printers, modems, acoustic couplers and disk drives (details available separately).

Baud rates supported: 9600, 4800, 2400, 1200, 600, 300, 150, and 75 (RX &TX).

EXPANSION PORT

An interface is provided at the EXPANSION PORT to support external peripherals and ROM application cartridges.

REAL TIME CLOCK

On-board time of day plus date clock which may be accessed by the operating system or application program.

POWER

Provided by plug-in battery packs:

Model LABH1040, Alkaline Battery Pack, takes 4 type AA alkaline batteries and gives up to 16 hours operation.

Model LRBP1030, Rechargeable Ni-Cad Battery Pack, gives up to 12 hours operation between charges

Recharging is by plug module type Mains Charging Adaptor, LMCA1050, and takes 5 hours with Liberator non-operational and 8 hours with Liberator operating.
NOTE — Battery pack may be charged outside Liberator.

Mains Charging Adaptor, LMCA1050, is intended for indoor use only:

Input: 240V a.c., 50Hz, 3W
Output: 9V d.c., 200mA
Produced to BS415

ON/OFF is automatic when display raised or lowered.

Auto Power Off facility operates to conserve battery life after 10 minutes inactivity.

At Power On, Liberator restored to pre-Power Off status.

LOW BATTERY warning during operation with Auto Power Off if ignored.

SIZE

Length: 252mm (9.9 inches)
Width: 295mm (11.6 inches)
Height: 35mm (1.4 inches)

WEIGHT

Liberator: 1.7 kg (3.75 lb.) (Batteries not included)
Batteries: LABH1040 (fully loaded) : 0.17 Kg (6 oz)
LRBP1030 : 0.20 Kg (7 oz)

TEMPERATURE

Operational limits: +10°C min, +40°C max.
Storage limits: −10°C min, +45°C max.

HUMIDITY

Storage and operational limits: 5 to 95% humidity.

THORN EMI reserves the right to change any equipment or its specification without notice.

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Chapter 11

CARE AND SERVICING OF YOUR LIBERATOR

Chapter 11

CARE AND SERVICING OF YOUR LIBERATOR

There are no user serviceable parts on the Liberator — it will, however, require cleaning from time to time and will obviously benefit from being handled with reasonable care and attention.

11.1 CARE

The Liberator case is manufactured from tough, flame retardant plastic and will withstand regular and careful handling. It is not, however, designed to withstand undue shock (such as being dropped on the floor), or immersion in liquids of any kind (such as being dropped in the bath).

11.2 CLEANING

Marks on the case should be wiped off using a soft damp cloth with a mild cleansing agent (**not** detergent). **Do not** allow water or cleaning fluid to enter the case.

The screen should occasionally be gently wiped clean of dust with a lens cloth impregnated with anti-static cleaning fluid. These pre-prepared cloths can be obtained from most opticians. **Do not** use detergents or scouring cleansers on the screen as the clarity of the display will be severely impaired.

11.3 CARRYING

Liberator can be carried safely by the handle provided or inside a briefcase or, alternatively, inside the optional carrying bag, LPCB1950, which has a choice of shoulder strap or wrist strap for extra handling security.

11.4 HELP

If you require assistance in using your Liberator equipment, you should ring Thorn EMI on the following number — 0443 435273.

11.5 WARRANTY

Your Liberator equipment carries a 12 month Warranty which commences on the date of purchase. This does not apply to consumables such as printer ribbons and replacement print wheels.

Please note that the Warranty does not cover accidental damage to the equipment.

11.6 FAULTS

Should a fault develop in your Liberator equipment and you are unable to resolve it by reference to the relevant handbook or by calling the above number, the following procedure should be followed:

a) Write brief details of the fault condition or of any accidental damage that the equipment has sustained. Remember to include in full the address to which the equipment should be returned when repair has been effected.

b) Put the equipment into its own box or, if this is not available, pack it carefully in suitable packaging.

c) Send the equipment to Thorn EMI Dynatel Limited, Treorchy, Mid Glamorgan, Wales.

Your equipment, or if it proves to be unrepairable a replacement unit, will normally be returned to you within a few days. Any charges for out-of-warranty repairs will be billed to you.

Appendix

A. KEYFAM (KFAM1080)

B. QUICK-START

C. QUICK REFERENCE SHEET

D. INDEX

Appendix

Appendix A

KEYFAM (KFAM1080)

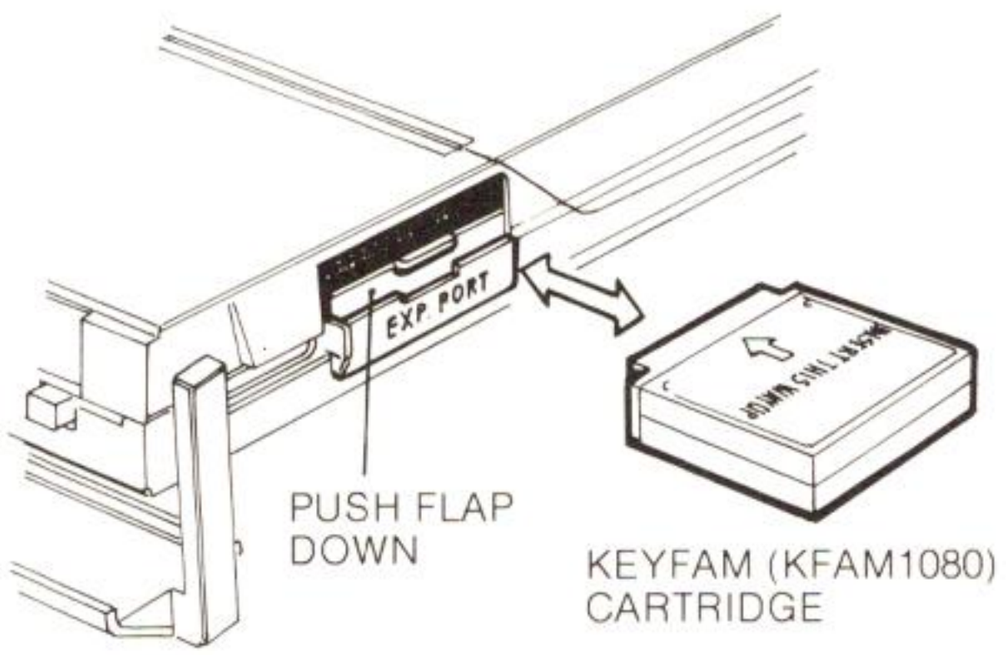
The Liberator Keyboard Familiarisation Cartridge

The KEYFAM training package consists of a short set of exercises for those who have not previously used a keyboard, or for those wishing to perform a brief check of their basic keyboard capabilities. It should take only 10 to 20 minutes to complete all the exercises at least once.

The information is contained in a plug-in cartridge, Model KFAM1080.

Users should read the following instructions before inserting the cartridge.

1. With the Liberator switched off (i.e. the lid closed) insert the cartridge firmly but carefully into the EXPANSION PORT on the left edge of the unit.



2. Lifting the lid will then show KEYFAM added, in its correct alphabetical order, to the option list on the right of the Main Menu screen.

3. Moving the large rectangular cursor over the KEYFAM option with the black arrowed cursor control keys (↑ ↓), the message 'KEYFAM — Keyboard familiarisation package', will appear at the top of the screen.

4. Pressing the ENTER key will then make the KEYFAM exercises available. Each of the exercises can be entered by placing the rectangular cursor over the selected option and pressing ENTER.

Note — The exercises can be abandoned at any time by pressing the blue BREAK/CMND key over the main keyboard.

5. KEYFAM is a basic keyboard familiarisation program and not a typing lesson and the sequences can be repeated as often as required. Use as many or as few fingers as desired, the main objective is to start new keyboard users on the path to achieving the ready transfer of information from the human memory to the machine memory, through the keyboard, at an acceptable rate.

6. The only keys used in the sequences are the alphabetic character keys plus the comma (,), the full stop (.), the long space bar at the foot of the keyboard, and the clearly marked larger SHIFT key. Most keys will automatically repeat if held down too long — so, one press for each character or space required.

7. In all exercises the small black cursor block will highlight the next character for keying. When the last word at the end of the screen line is reached the entry point will move automatically to the next line.

8. Each of the sequences (except KEYS) is timed by the program and the result displayed on the screen on the keying of the last character or symbol.

9. There are six exercises plus an EXIT option in the program:-

KEYS	an optional introduction to the keyboard highlighting on the screen the position of each successive letter of the alphabet, the two punctuation marks, and the space bar in turn — cancelled by the depression of the appropriate key.
TIMED	a straight alphabetic sequence keyed three times.
QUICK	a basic sentence utilising all the letters of the alphabet and introducing spaces (but no punctuation); also keyed three times.
PARTY	a simple sentence of common characters introducing the initial capital letter and concluding full stop, again keyed three times.
RHYME	a readily memorised rhyme keyed twice only, providing a longer keying run and introducing the comma, full stop and following spaces.

MAD	an optional test, containing characters roughly in the order of letter frequency in common English text. The sequence can be completed before and after the main exercises, thereby providing a basis for assessment of progress achieved.
EXIT	Return to the Main Menu.

10. When practice on KEYFAM is completed the Liberator lid should be closed **before** the cartridge is withdrawn.

Appendix B
QUICK-START

— For the knowledgeable or the impatient

1. Open the Liberator lid and set the screen or keyboard angle and contrast

2. Use black cursor keys (↑ and ↓) to review options from Main Menu

3. Select UTILITY with Cursor and press ENTER (↵)

4. Use black cursor keys (↑ and ↓) to review options from UTILITY Menu

5. Select CLOCK option with black key and press ENTER (↵)

6. Enter day, date and time using black cursor keys (↑ and ↓) to select and ENTER key to set, returning to Main Menu

7. Select NEWFILE with Cursor and press ENTER (↵)

8. Key in file name TEST (or your choice) and press ENTER (↵)

9. Key in several lines of text without concern for errors — system will automatically move words to next screen line

10. Use ENTER (↵) key to create short lines and blank lines

11. Move Cursor around text using black keys plus SHIFT and CTRL as appropriate — see Quick Reference Sheet for details

12. Insert spaces, characters and words at Cursor point within text

13. Use DEL keys (|←■) and (→|) to delete characters, words, and lines at Cursor point — see Quick Reference Sheet for details

14. Press O'WRT key to overwrite text from Cursor point on — press again to return to normal insert mode

15. Press MARK key and move Cursor to highlight (Mark) text, using SHIFT and CTRL as appropriate — see Quick Reference Sheet.

16. Press MARK key again to show options for marked text — use black keys (↑ and ↓) to review options

17. Press blue BREAK key to cancel marking and return to text

18. Press blue CMND (COMMAND) key to show options available from text — use black keys (↑ and ↓) to review options

19. Select MENU option and press ENTER for return to Main Menu

QUICKPRINT??

1. Printer powered, switches set, and connector lead in Liberator

2. Correct paper loaded and at exit point ready to print

3. SETPRINT set (D or M), WIDTH set (66 or 76)

4. PRINT selected from Main Menu, File or MARK then ENTER

5. Check printer type, 'Stop for paper at each page (Y/N):
Enter Y or N.

6. Proceed with next task when flashing cursor is restored.

Appendix C

QUICK REFERENCE SHEET

Functions and Controls available from Main Menu and Files

GENERAL

COMMAND (BREAK CMND) — Press once to show functions available from text files. Press again, without selection, to return to text without action.

CONTROL (CTRL) — Extends use of Cursor and Delete functions.

CURSOR — 1. Highlit rectangular block on MAIN MENU and COMMAND option lists to indicate current option or file for selection by ENTER (↵).
2. Highlit flashing character block in normal text mode indicating current entry position.
3. Highlit solid character block in OVERWRITE text mode indicating current entry position.

CURSOR CONTROLS — 1. Moves rectangular Cursor around COMMAND, MARK and MENU options.
2. Moves character Cursor around text.

ENTER (↵) — 1. Actions selected instruction or function (e.g. new filename).
2. Moves to new line of text at end of paragraph or section, etc.

MAIN MENU — Opening screen showing files and main facilities available.

MARK — Press once to use Cursor to mark (highlight) text areas for action, press again after 'marking' to show options available. If pressed again without marking, operation cancelled.

POWER ON/OFF — The unit is switched on and off by opening and closing the lid. If not used for 10 mins the unit will power off automatically — to re-start, press the power button on the ledge at the rear of the keyboard. User returned to point of interruption.

SHIFT — 1. Hold down to produce capital letters and upper symbols on keys.
2. Extends use of Cursor and Delete functions.
3. If CAPS LOCK on, press SHIFT to produce lower case letters.

TABULATION (TAB) — Each key depresion moves the current entry point to the start of the next eight character tabulation column.

DELETION AND INSERTION

DELETE — Removes text — characters, words and lines.

INSERT — No special controls. Move Cursor to insertion point and key in extra text. Move to next insertion point with Cursor Controls.

OVERWRITE (O'WRT) — Replaces text without need to delete previous material. Press once for ON—O'WRT, again for OFF—INSERT.

OPTIONS ON PRESSING COMMAND

FIND — Finds nominated words etc (up to 16 chars) **from the cursor position forward** in a current file. This function is sensitive to upper and lower case characters and thus will find KEYBOARD separately from keyboard.

MENU — Returns the user to the Main Menu, saving text.

MERGE — Includes another file from the Menu at the Cursor point.

PASTE — 'Pastes' into a file, at the Cursor point, the contents of the Paste Buffer previously filled by a CUT or COPY operation.

PRINT	Prints the file on a Liberator printer.
WIDTH	Sets screen and print line to 66 characters (10 cpi-Pica) or 76 characters (12 cpi-Elite).

OPTIONS ON PRESSING MARK

COPY	Transfers the marked highlit text to the Paste Buffer without removing the original, then returns user to file at Cursor point.
CUT	Removes the marked highlit text and transfers it to the Paste Buffer, then returns user to file at Cursor point.
DELETE	Removes the marked highlit text, scraps it, then returns user to file at Cursor point.
PRINT	Prints the marked highlit text on a Liberator printer, then returns user to file at Cursor point.

CURSOR CONTROLS

Press with SHIFT to move Cursor to TOP of PREVIOUS SCREEN of text

Press with CTRL to move Cursor to START OF FILE

Press with SHIFT to move Cursor to START of NEXT WORD to LEFT

Press with CTRL to move Cursor to START of CURRENT LINE

Press once on arrow to move ONE LINE or CHAR-ACTER at a time in the direction of arrow

Press with SHIFT to move Cursor to START of NEXT WORD to RIGHT

Press with CTRL to move Cursor to END of CURRENT LINE

Press with SHIFT to move Cursor to BASE of NEXT SCREEN of text

Press with CTRL to move Cursor to END OF FILE

DELETE and OVERWRITE CONTROLS

Press, after moving Cursor to error, to delete the CHARACTER to LEFT of Cursor

Press with SHIFT to delete start of WORD to LEFT of Cursor

Press with CTRL to delete to START of CURRENT LINE

Press when keying text, to BACK -SPACE, erasing one character

Press once to enter OVERWRITE, press again to restore INSERT

Press, after moving Cursor to error, to delete the CHARACTER UNDER the Cursor

Press with SHIFT to delete WORD to RIGHT of Cursor

Press with CTRL to delete to END of CURRENT LINE

Notes: 1. To use SHIFT or CTRL keys with the Cursor or Delete keys, hold down the SHIFT or CTRL key, whilst pressing the other key once for each action required. For example, to move the Cursor down through two screens of text, hold down the SHIFT key and press the Cursor Control (↓) twice — then release both keys.

2. The Cursor and Delete functions are auto-repeat, and if the keys are held down, the function continuously repeats until the key is released. For example, holding the SHIFT key down and pressing Cursor Control (←) will cause the Cursor to move one word to the left, pause, then keep moving speedily one word to the left at a time, until the Cursor key is released.

Appendix D
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(Italic indicates diagram)

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